COUNCIL ON VIRGINIA'S FUTURE

August 29, 2005 Retreat

RETREAT AGENDA

Opening Remarks - The Honorable Mark R. Warner

Agenda Overview & Status Report - Jane Kusiak

Best-Managed State Workgroup Summary - John O. (Dubby) Wynne
- *Workgroup Report*
- *Status Report and Panel Discussion: State Agency Planning and Budgeting Model - Ric Brown with Robert Stroube (Department of Health), Mike Eisenman (Department of Business Assistance) and Karen Rae (Department of Rail and Public Transportation)*
- *Measuring Productivity - Discussion facilitated by Robert Holsworth*

Education Workgroup Report - Heywood Fralin & Edward Murphy

Economy Workgroup Summary - The Honorable William Howell & Marge Connelly
- *Workgroup Report*
- *Recommendation: Initiation of a Business Climate Survey*
- *Recommendation: Establishment of a Regional Divisionary System for Data Analysis*
- *Update on the Virginia Futures Forum*

Next Steps - Jane Kusiak
- *Demonstration of the Virginia Atlas of Community Health - Jeff Wilson*

SEMINAL DISCUSSION

Charting the Course for Economic Change - Chris Chmura
- *Next Generation of Thought - Presentation by Chris Chmura*
- *Discussion initiated by Marge Connelly*

Closing Remarks & Adjournment - The Honorable Mark R. Warner
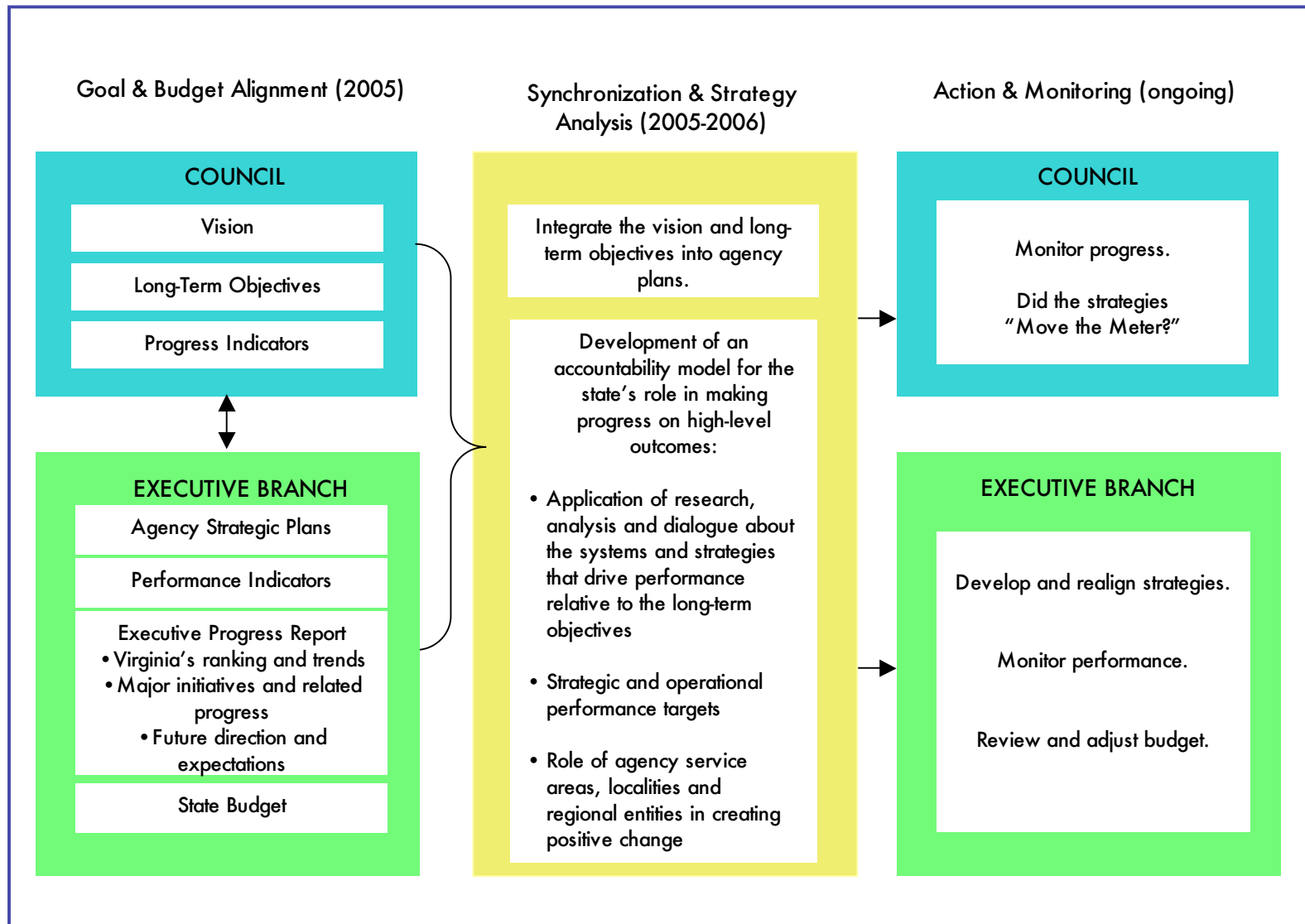
Dinner

STATUS REPORT

Jane Kusiak

21st CENTURY POLICYMAKING FRAMEWORK

Goal & Budget Alignment (2005)

COUNCIL

- Vision
- Long-Term Objectives
- Progress Indicators

EXECUTIVE BRANCH

- Agency Strategic Plans
- Performance Indicators
- Executive Progress Report
  - Virginia's ranking and trends
  - Major initiatives and related progress
  - Future direction and expectations
- State Budget

Synchronization & Strategy Analysis (2005-2006)

Integrate the vision and long-term objectives into agency plans.

Development of an accountability model for the state's role in making progress on high-level outcomes:

- Application of research, analysis and dialogue about the systems and strategies that drive performance relative to the long-term objectives
- Strategic and operational performance targets
- Role of agency service areas, localities and regional entities in creating positive change

Action & Monitoring (ongoing)

COUNCIL

Monitor progress.

Did the strategies "Move the Meter?"

EXECUTIVE BRANCH

Develop and realign strategies.

Monitor performance.

Review and adjust budget.

WHERE WE ARE IN OUR JOURNEY - HIGHLIGHTS

- Vision
- Long-term objectives - 2005
    - Best-Managed State
    - Economy
    - Education
- Long-term objectives - 2006
    - Informed/Engaged Citizenry
    - Health & Families
    - Natural/Historic/Cultural Resources
    - Public Safety
    - Transportation
- First draft of macro indicators for all objectives
- Three workgroups (2005) - economy, education, best-managed state
- New agency planning model with link to budget; alignment of agency goals and objectives to Council objectives; initial analysis of agency plans
- Efficiency and effectiveness initiatives
- Virginia Futures Forum
- Ongoing presentations to several audiences including internal and the following external groups: the World Future Society and the Council of State Governments
- Concept for and ongoing development of *The Virginia Report*
- Information technology initiative

THE VIRGINIA REPORT: LIST OF INDICATORS

OBJECTIVE	INDICATORS
BEST-MANAGED STATE	
2005 RECOMMENDED	1.1 – Bond rating 1.2 – Performance against critical success indicators – under construction 1.3 – Productivity index – under construction 1.4 – Employee retention and satisfaction – under construction 1.5 – Citizen satisfaction with state government services – under construction
ECONOMY	
2005 RECOMMENDED	2.1 – Personal income (per capita personal income; average wages and salaries) 2.2 – Poverty rate 2.3 – Unemployment rate 2.4 – Employment growth 2.5 – Business start-ups 2.6 – Business climate – under construction 2.7 – Key growth areas by industry cluster – under construction 2.8 – Human capital development – under construction
EDUCATION	
2005 RECOMMENDED	4.1 – Education attainment levels 4.2 – School readiness – under construction 4.3 – High school graduation rate 4.4 – Education quality – under construction 4.5 – College participation rate 4.6 – College graduation rate 4.7 – Human capital development – under construction

THE VIRGINIA REPORT: LIST OF INDICATORS

OBJECTIVE   INDICATORS

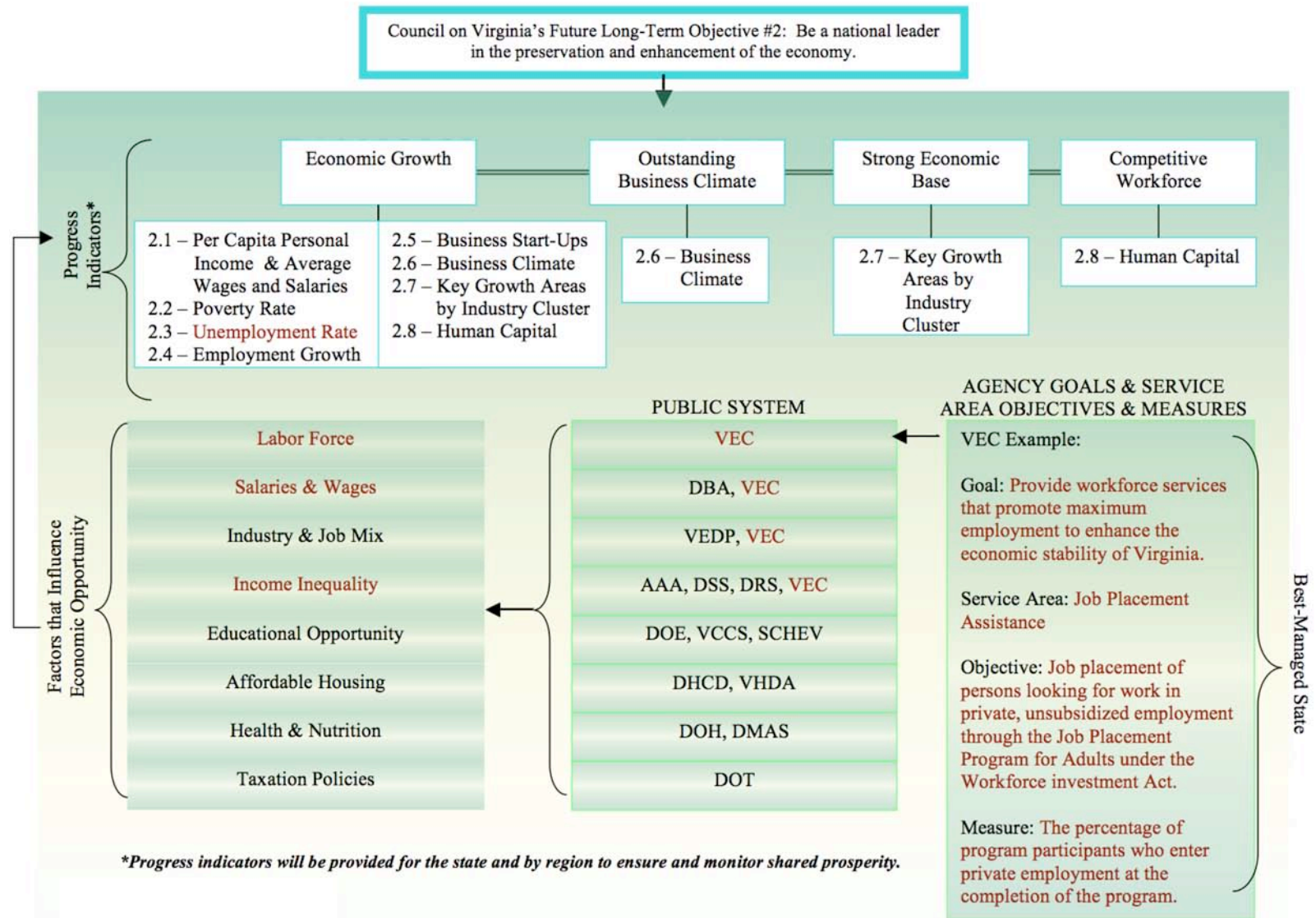| INFORMED / ENGAGED CITIZENRY	
2006	3.1 – Voter registration
	3.2 – Voter turnout
	3.3 – Citizen participation
HEALTH & FAMILY	
2006	5.1 – Healthy baby index
	5.2 – Immunization rate
	5.3 – Obesity rate
	5.4 – Asthma rate
	5.5 – % of citizens with health insurance
	5.6 – % of elderly citizens without adequate health care and support
	5.7 – % of deaths classified as premature
NATURAL, HISTORIC & CULTURAL RESOURCES	
2006	6.1 – Air quality
	6.2 – Water quality
	6.3 – Chesapeake Bay quality
	6.4 – Acres of preserved land
	6.5 – Solid waste and recycling - % of waste recycled
	6.6 – Historic preservation - # of sites
PUBLIC SAFETY	
2006	7.1 – Crime rate
	7.2 – Crime clearance rate
	7.3 – Traffic fatalities
	7.4 – Emergency preparedness – annual hours of training of emergency personnel
	7.5 – Juvenile arrest rate
	7.6 – Recidivism rate
TRANSPORTATION	
2006	8.1 – Congestion
	8.2 – Road capacity
	8.3 – Road maintenance
	8.4 – Infrastructure adequacy
	8.5 – Port tonnage

Council on Virginia's Future

CASCADE OF MACRO EDUCATION INDICATORS TO AGENCY SERVICE AREA INDICATORS
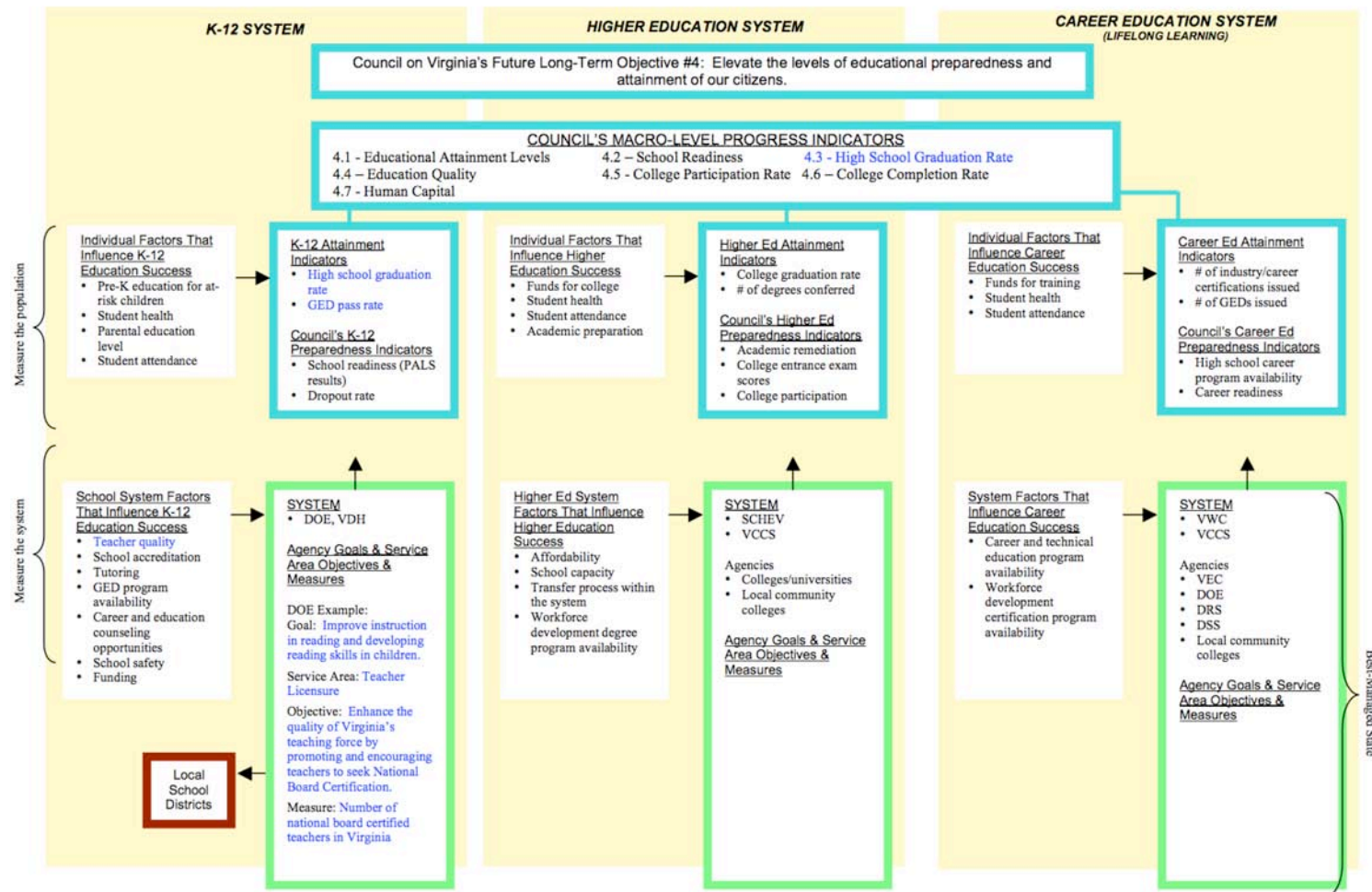
ALIGNMENT OF INDICATORS - ECONOMY EXAMPLE

CASCADE OF ECONOMY MACRO INDICATORS TO AGENCY SERVICE AREA INDICATORS

Council on Virginia's Future Long-Term Objective #2: Be a national leader in the preservation and enhancement of the economy.

Progress Indicators*

Economic Growth	Outstanding Business Climate	Strong Economic Base	Competitive Workforce

Economic Growth
2.1 – Per Capita Personal Income & Average Wages and Salaries
2.2 – Poverty Rate
2.3 – Unemployment Rate
2.4 – Employment Growth
2.5 – Business Start-Ups
2.6 – Business Climate
2.7 – Key Growth Areas by Industry Cluster
2.8 – Human Capital

Outstanding Business Climate
2.6 – Business Climate

Strong Economic Base
2.7 – Key Growth Areas by Industry Cluster

Competitive Workforce
2.8 – Human Capital

Factors that Influence Economic Opportunity

	PUBLIC SYSTEM	
Labor Force	VEC	
Salaries & Wages	DBA, VEC	
Industry & Job Mix	VEDP, VEC	
Income Inequality	AAA, DSS, DRS, VEC	
Educational Opportunity	DOE, VCCS, SCHEV	
Affordable Housing	DHCD, VHDA	
Health & Nutrition	DOH, DMAS	
Taxation Policies	DOT	

AGENCY GOALS & SERVICE AREA OBJECTIVES & MEASURES

VEC Example:

Goal: Provide workforce services that promote maximum employment to enhance the economic stability of Virginia.

Service Area: Job Placement Assistance

Objective: Job placement of persons looking for work in private, unsubsidized employment through the Job Placement Program for Adults under the Workforce investment Act.

Measure: The percentage of program participants who enter private employment at the completion of the program.

Best-Managed State

Progress indicators will be provided for the state and by region to ensure and monitor shared prosperity.

BEST-MANAGED STATE WORKGROUP

John O. (Dubby) Wynne, Chair

Members:

The Honorable William Leighty

The Honorable John Bennett

The Honorable Sandra Bowen

Ric Brown

Jane Kusiak
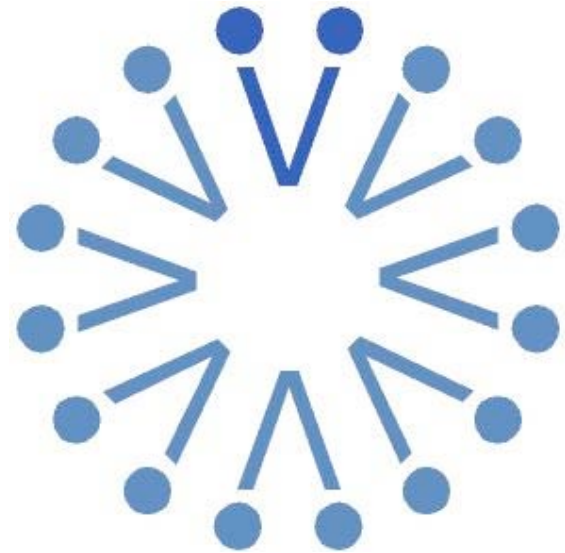
BEST-MANAGED STATE: What We're Here to Do

- Provide a long-term focus on high priority issues.

- Create an environment for improved policy and budget decision making. Ensure that agencies are doing the following:
    - Planning in a more systematic manner
    - Setting objectives and articulating anticipated results
    - Linking the objectives to the budget and to the Commonwealth's long-term objectives
    - Managing for results by establishing and monitoring performance measures

- Increase government accountability.

- Improve government operations and performance.

- Inform citizens about performance and engage them in dialogue about Virginia's future.

Operationalize the Roadmap

ROADMAP EVALUATION

PERFORMANCE MEASUREMENT & CONTINUOUS IMPROVEMENT

PERFORMANCE-BASED BUDGETING

STRATEGIC PLANNING

VISION

LONG-TERM OBJECTIVES & HIGH-LEVEL MEASURES

GUIDING PRINCIPLES

DRIVERS OF DESIRED OUTCOMES
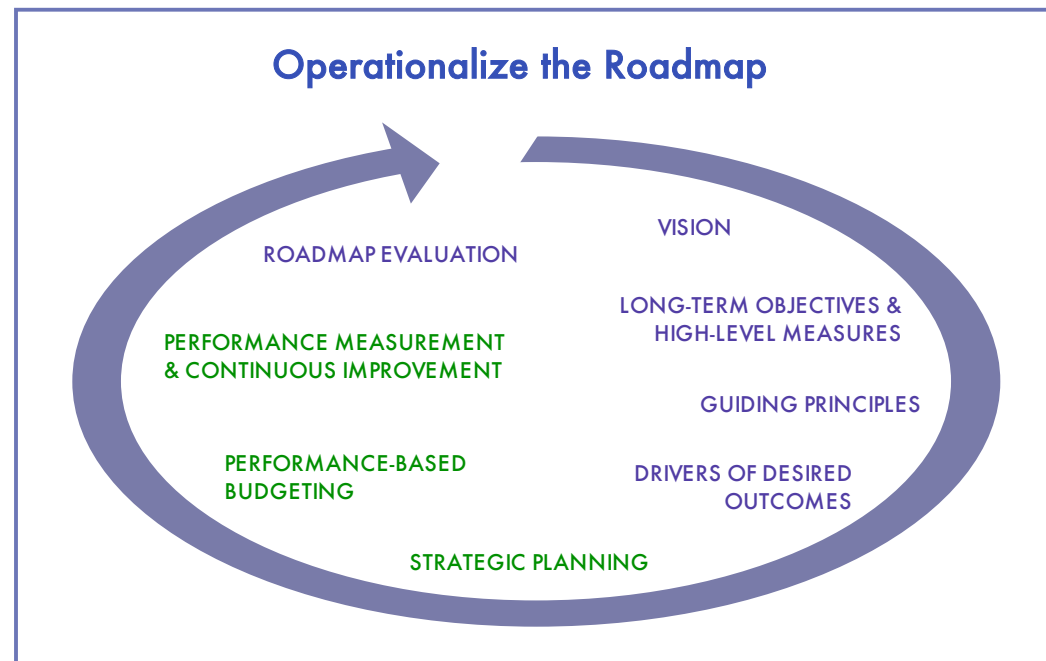
BEST-MANAGED STATE: Progress on Roadmap Elements

ELEMENT	STATUS
VISION *Binder: Status Report*	The vision for Virginia's future was developed in 2003 and refined in 2004 (transfer of specific targets to the long-term objectives). Feedback was obtained from David Osborne in June 2005.
LONG-TERM OBJECTIVES & HIGH-LEVEL MEASURES *Binder: Status Report*	Eight long-term objectives were developed in 2004 from the work completed in 2003 by the Council workgroups. Feedback was obtained from David Osborne in June 2005.
GUIDING PRINCIPLES *Binder: Status Report*	A draft set of guiding principles was developed in 2005. The next step is to obtain feedback and approval from the full Council.
DRIVERS OF DESIRED OUTCOMES *Handout – pages 8-9*	This is being addressed as part of the development of *The Virginia Report*. This work is in process for three of the pillars of the vision: best-managed state, economic development and educational attainment. Workgroups are examining the intersection between the economy and education .
STRATEGIC PLANNIING *Binder: Best-Managed State* *Handout – pages 15-18*	This work is underway as part of the agency strategic planning process. Agency strategic plans were submitted in July 2005 and are under review by the Department of Planning and Budget.
PERFORMANCE BASED BUDGETING *Binder: Best-Managed State* *Handout – pages 15-18*	The new performance-based strategic planning and budgeting model provides a clear link between budget allocations, service area objectives and service area results. This information can serve as input for funding decisions .
PERFORMANCE MEASUREMENT & CONTINUOUS IMPROVEMENT *Binder: Best-Managed State*	Agency leaders will report results and use measurement data to identify successes and improvement opportunities. Efficiency and effectiveness initiatives will continue. Ways to measure productivity are being explored.
ROADMAP EVALUATION	We will begin to define processes for evaluating the *Roadmap* and assessing agency progress in the fourth quarter of 2005
PUBLIC INPUT	Public input will be obtained at several levels: through agencies as part of the strategic planning process; through the budget process; through activities associated with the development and publication of *The Virginia Report*.

BEST-MANAGED STATE: Workgroup Report

Workgroup Purpose

To develop high-level indicators and measures for monitoring progress toward the Council's long-term objective: **To be recognized as the best-managed state in the nation.** To determine drivers of high-level, "best-managed state" indicators.

Workgroup Objectives

- Determine which high-level, "best-managed state" indicators should be used in *The Virginia Report.*
- Ensure that the appropriate data sources are used and comparable information is available for other states, Virginia regions and Virginia over time.
- Find the "A-ha's" in the story.

Meetings (2005) - March 8, April 8, April 27, June 13, July 13, August 4, including a meeting with David Osborne to secure his feedback on the overall approach

Highlights

- Virginia tied with Utah to receive the highest grade for government performance by the Government Performance Project (GPP - February 2005). States were evaluated in the following four areas of management: people, money, infrastructure and information.
- Provided oversight for strategic planning/budgeting model development and implementation.
- Discussed efficiency and effectiveness initiatives and associated reward/recognition system.
- Examined several models (e.g., Baldrige, Balanced Scorecard, GPP) to create a framework for monitoring this objective.
- Developed a framework for performance indicators and identified a preliminary set of indicators. Data for four of the five recommended performance indicators do not currently exist.
- Discussed the capability of the current array of information systems to support the linkage and analysis of Council and agency data.
- Received from the Department of Human Resource Management a report of state survey findings on human resource metrics developed by the National Association of State Personnel Executives.

BEST-MANAGED STATE: Workgroup Report

Recommendation: Performance Indicators

Framework Elements	Macro Indicators as of May 12, 2005	Recommended Macro Indicators
Financial Management	Triple A Bond Rating	1.1 – Bond Rating
Long-Range Planning & Performance Management	Development and active utilization of published agency strategic plans and service area performance metrics with direct relationship to budget development and resource allocation Establishment of objectives, metrics and policies that provide a long-term, strategic focus for the state and build on the existing six-year financial planning process Continuous improvement of performance outcomes and productivity enhancement	1.2 – Performance against critical success indicators *(Under construction)* 1.3 – Productivity index *(Under construction)*
Workforce	Turnover rate within critical employment categories Results of biennial employee survey that measures improvement against critical elements	1.4 – Employee retention and satisfaction as measured in an employee survey *(Under construction)*
Citizen Satisfaction	Identification of critical few elements in each service area of customer satisfaction and measurement of improvement	1.5 – Citizen satisfaction with state government services *(Under construction)*

Unanswered Questions & Work in Process

- Productivity Measurement *(Indicator 1.3)* - The Workgroup continues to investigate how to develop an effective index for measuring state government productivity.

- Employee Satisfaction Measurement *(Indicator 1.4)* - The Workgroup is exploring the possibility of conducting an employee satisfaction and morale survey in the January/February 2006 timeframe to gather workforce data needed for this performance indicator. The last employee survey was conducted in 1998. The Department of Human Resource Management will work with the Workgroup to develop a proposal for conducting this survey. The proposal will address the following factors: ensuring continuity from the 1998 survey, timing, ensuring feedback is used, census vs. sample, survey type, organization to develop/administer it, administration, costs.

- Citizen Satisfaction Measurement *(Indicator 1.5)* - Research is underway to determine the best approach for measuring citizen satisfaction. Currently, an inventory of measurement methods is being developed.
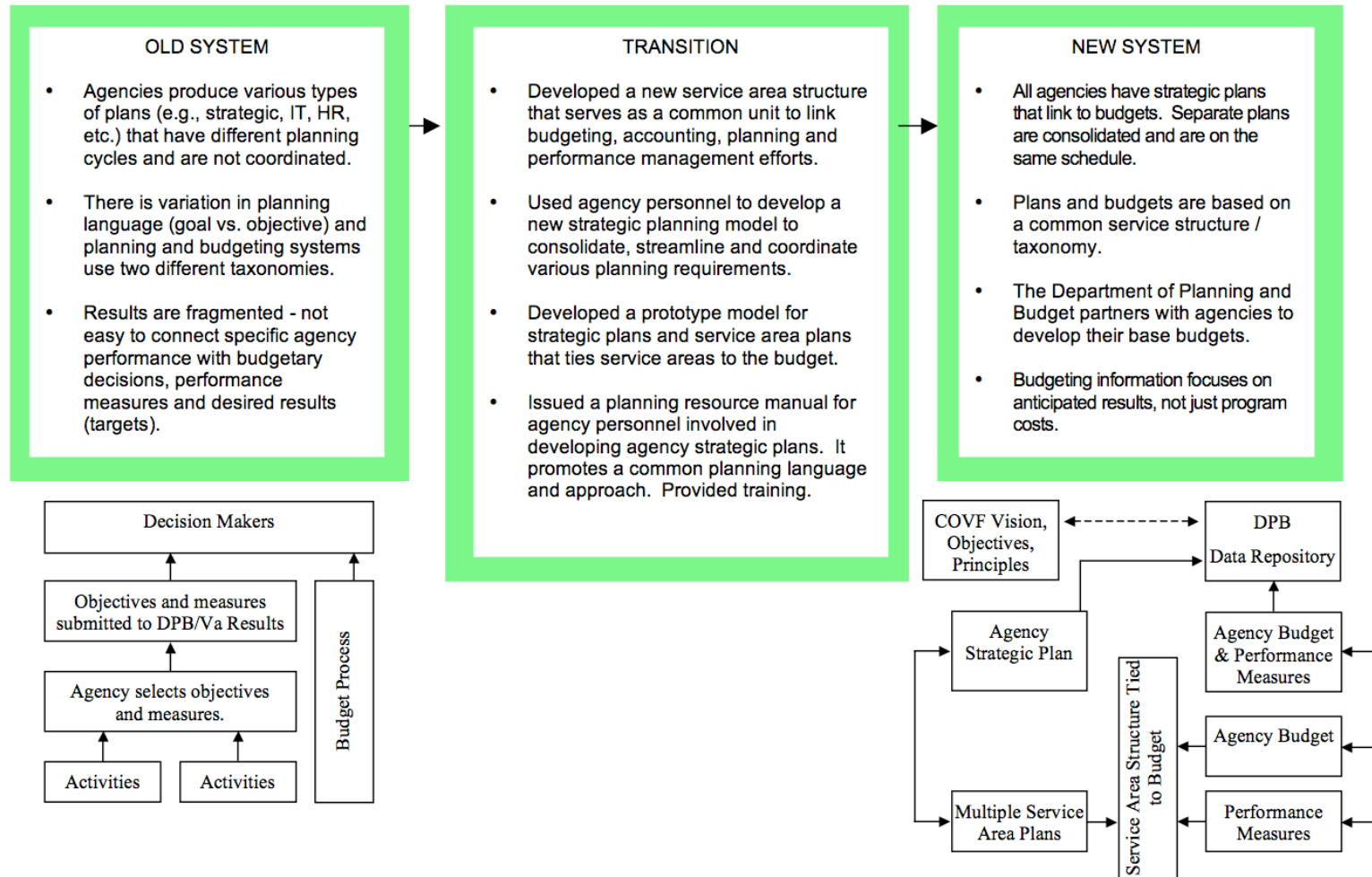
Ric Brown, Director of Planning & Budget

BEST MANAGED STATE: Agency Strategic Planning / Budgeting System

OLD SYSTEM

- Agencies produce various types of plans (e.g., strategic, IT, HR, etc.) that have different planning cycles and are not coordinated.

- There is variation in planning language (goal vs. objective) and planning and budgeting systems use two different taxonomies.

- Results are fragmented - not easy to connect specific agency performance with budgetary decisions, performance measures and desired results (targets).

TRANSITION

- Developed a new service area structure that serves as a common unit to link budgeting, accounting, planning and performance management efforts.

- Used agency personnel to develop a new strategic planning model to consolidate, streamline and coordinate various planning requirements.

- Developed a prototype model for strategic plans and service area plans that ties service areas to the budget.

- Issued a planning resource manual for agency personnel involved in developing agency strategic plans. It promotes a common planning language and approach. Provided training.

NEW SYSTEM

- All agencies have strategic plans that link to budgets. Separate plans are consolidated and are on the same schedule.

- Plans and budgets are based on a common service structure / taxonomy.

- The Department of Planning and Budget partners with agencies to develop their base budgets.

- Budgeting information focuses on anticipated results, not just program costs.

BEST MANAGED STATE: Agency Strategic Planning / Budgeting

Review of Initial Submission - Statistics

- 103 agencies
- 758 service areas
- 1,353 objectives
- 1,959 performance measures

Review / Observations of Initial Submissions

- Creating "dynamic" plans that address change is challenging.
- How leaders perceive the role of their agencies influences how they manage their agencies
- Measurement: 1) some measures are new and will need further development, 2) some measures will need refinement, and 3) some challenges exist in ensuring agencies are able to measure performance in a meaningful way.

Next Steps

- September: Agencies submit budget requests and align strategic plans, if necessary.
- September - December: Budget development with review of agency budget requests, plans, objectives and measures; linkage of service area objectives and targets to overall statewide objectives
- December: Present new budget that shows how proposed spending relates to specific objectives and outcomes for state agency service areas (transparency).
- January: Alignment of agency plans to proposed budget
- January - April: General Assembly Session
- May: Finalize linkage between service area objectives and performance targets and overall statewide objectives.
- Summer 2006: Report on progress.

BEST MANAGED STATE: Agency Strategic Plan Panel Discussion

Robert Stroube, Department of Health
Karen Rae, Department of Rail & Public Transportation
Mike Eisenman, Department of Business Assistance

PANEL PRESENTATION FORMAT
Agency Overview
- Mission
- Description of the agency
- Total budget

Agency Strategic and Service Area Plans
- Key objectives
- How they'll be measured - kinds of data; challenges
- How they'll align with Council objectives

DISCUSSION FOLLOWING AGENCY PRESENTATIONS
- How is this planning/budgeting process different from previous ones? Lessons learned?
- What is the impact of the process and the resulting plans on how the agency is managed?
- What are the agency's challenges and concerns?

BEST-MANAGED STATE: Measuring Productivity

Robert Holsworth, Virginia Commonwealth University

BEST-MANAGED STATE: Measuring Productivity

Context:

- HB 2097 (2003) - ...*develop and submit annually to the General Assembly and the Governor and publish to the public a balanced accountability scorecard containing an assessment of (i) current service performance, (ii)* productivity improvement, *and (iii) progress against long-term objectives.*

- Best-Managed State Indicator: 1.3 - Productivity Index

- Effectiveness and Efficiency Initiatives - centralized, decentralized (i.e., programmatic), continuous improvement efforts (e.g., doing more/better with less) - how to track progress

- Agency Strategic Plan: Executive Progress Reports - include productivity improvement report

Discussion Objective: Discuss how to approach a productivity standard for state government.

- Defining productivity

- Characterizing productivity

- Challenges in measuring productivity and in nurturing productivity improvement

- Where we go from here

EDUCATION WORKGROUP

Heywood Fralin, Co-chair
Edward Murphy, Co-chair

Members:
The Honorable Peter Blake
The Honorable John Chichester
The Honorable Richard Saslaw

Support Team:
Noreen Crowley – Assistant Secretary of Education
Ellen Davenport – Virginia Community College System
Jo Lynne DeMary - Department of Education
Sarah Dickerson – Senate Finance Committee
Glenn DuBois – Virginia Community College System
Don Finley – Virginia Business Higher Education Council
Sarah Finley – Deputy Secretary of Education
Susan Hogge – House Appropriations Committee
Dan LaVista – State Council of Higher Education for Virginia
Tony Maggio – House Appropriations Committee
Tod Massa – State Council of Higher Education for Virginia
Margaret Roberts – Department of Education
Amy Sebring – Senate Finance Committee
Anne Wescott - Department of Education

DPB and Council Staff

EDUCATION: Workgroup Report

Workgroup Purpose

To develop high-level indicators and measures for monitoring progress toward the Council's long-term objective: **To elevate the levels of educational preparedness and attainment of our citizens.** To determine drivers of high-level education indicators.

Workgroup Objectives

- Determine which high-level, "education" indicators should be used in *The Virginia Report*.
- Ensure that the appropriate data sources are used and comparable information is available for other states, Virginia regions and Virginia over time.
- Find the "A-ha's" in the story.

Meetings (2005) - June 1, July 15, August 11 (joint meeting with the Economy Workgroup)

Highlights

- Held several discussions regarding the indicators and their relationship to understanding education quality and the ability to capture and integrate student data and outcomes.
- Identified the following topics for further exploration: (1) high school student transition to post graduation education and career options, (2) aspiring to excellence - state/country comparisons, and (3) measuring school readiness.
- Reviewed and discussed the relationship between education and economic prosperity.

EDUCATION: Workgroup Report

Recommendation: Performance Indicators

Framework	Macro Indicators as of May 12, 2005	Recommended Macro Indicators*
Overall Attainment	Education Attainment	4.1 – Education Attainment Levels
K-12 Preparation and Attainment	School Readiness - % of Kindergarten students scoring below grade level in literacy fundamentals High School Dropout Rate High School Graduation Rate Education Quality	4.2 – School Readiness (Under construction) 4.3 – High School Graduation Rate 4.4 – Education Quality (Under construction)
Higher-Education Preparation and Attainment	College Participation Rate College Graduation Rate	4.5 – College Participation Rate 4.6 – College Graduation Rate
Career Preparation and Attainment	Workforce Development	4.7 – Human Capital Development (Under construction)

Include Standards of Learning and Math and Science SAT scores in The Virginia Report Education Section appendix.

Unanswered Questions & Work in Process

- **Pilot Project: What happens to high school graduates?** *(Indicators 4.5 & 4.7)* – The first phase of this study is to determine the best system for tracking high school graduates. The second phase of this study is to address how to use this information to support students on their journey in achievement of career goals. Roanoke city and Roanoke County schools superintendents have agreed to be part of the pilot. A preliminary meeting was held August 23rd and was attended by Edward Murphy, Peter Blake, Jane Kusiak, Marvin Thompson (Superintendent of Roanoke City Public Schools) and Linda Weber (Superintendent of Roanoke County Public Schools).

- **Educational Quality: Aspiring to Excellence** – A study is being considered to conduct an analysis of Virginia students' math and science attainment levels compared to other states/countries. The study will include a review of math/science competencies and curriculum. This analysis will be done in conjunction with the Economy Workgroup.

- **School Readiness** *(Indicator 4.2)* – Work will continue to determine how to measure school readiness for the entire, applicable population. The Workgroup will examine the potential use of the PALs assessment tool as well as other methods.

- **Human Capital Development Performance** *(Indicator 4.7 refinement)* – See Economy Workgroup Report

ECONOMY WORKGROUP

The Honorable William Howell, Co-Chair
Marge Connelly, Co-Chair

Members:
The Honorable Michael Schewel
Tim Robertson

Support Team:
Vinod Agarwal – Old Dominion University
Ann Battle – Virginia Economic Development Partnership
Ric Brown – Department of Planning and Budget
Chris Chmura – Chmura Analytics & Economics
Bob Holsworth – VCU, Center for Public Policy
Mark Kilduff – Virginia Economic Development Partnership
Fletcher Mangum – Mangum Consulting
Neal Menkes – Senate Finance Committee
Anne Oman – House Appropriations Committee
Gilbert Yochum – Old Dominion University

DPB and Council Staff

ECONOMY: Workgroup Report

Workgroup Purpose

To develop high-level indicators and measures for monitoring progress toward the Council's long-term objective: **Be a national leader in the preservation and enhancement of our economy.** To determine drivers of high-level "economy" indicators.

Workgroup Objectives

- Determine which high-level, "economy" indicators should be used in *The Virginia Report*.
- Ensure that the appropriate data sources are used and comparable information is available for other states, Virginia regions and Virginia over time.
- Find the "A-ha's" in the story.

Meetings (2005) - June 14, July 12, August 11 (joint meeting with the Education Workgroup)

Highlights

- Analysis of current external rankings and variables used by various entities to measure economic performance
- The creation and designation of a set of regions to be used for data analysis. The discussion included an analysis of current regional systems used by various entities.
- Examination of several existing economic and business climate surveys to determine whether they were suitable for monitoring progress in Virginia
- Oversight provided on the Virginia's Futures Forum - *Competing in the 21st Century: Moving Virginia's Human Capital Meter*
- Review and discussion of the relationship between education and economic prosperity, including the need to identify both readily accessible data as well as data needed for potentially complex metrics for monitoring human capital development

ECONOMY: Workgroup Report

Recommendation: Performance Indicators

Framework	Macro Indicators as of May 12, 2005	Recommended Macro Indicators*
Economic Growth	Per Capita Personal Income Poverty Rate Unemployment Rate Employment Growth	2.1 – Personal Income (per capita personal income; average wages and salaries) 2.2 – Poverty Rate 2.3 – Unemployment Rate 2.4 – Employment Growth 2.5 – Business Start-Up s
Outstanding Business Climate	Business Climate	2.6 – Business Climate – Virginia Business Climate Survey results *(Under construction)*
Strong Economic Base		2.7 – Key growth areas by industry cluster *(Under construction)*
Competitive Workforce	Workforce Quality	2.8 – *Human Capital Development (Under construction)*

Additional Recommendations

- Business Climate Survey (See binder - Economy tab)
- Council Regional Divisionary System Boundaries (See binder - Economy tab)

Unanswered Questions & Work in Process

- **Human Capital Development** *(Indicator 2.8)*: The Workgroup is developing an approach for measuring human capital development. The following efforts are underway in support of this work:
  - Conducting an analysis regarding which skills and credentials are most associated with projected occupational growth
  - Considering a study to compare Virginia to other states and countries regarding trends and gaps in meeting critical occupation and job growth categories. This analysis will be done in conjunction with the Education Workgroup.
  - Examining the integration of education, training, economy and employment data
  - Determining how the results of this work complement the Virginia Futures Forum

VIRGINIA FUTURES FORUM

Purpose: To sponsor an annual event that fosters dialogue on a high-priority issue for Virginia's future and serves as a catalyst for action at a state and regional level.

Initial Co-Sponsors: Council on Virginia's Future, Virginia Tech, Virginia Tobacco Commission and Virginia Workforce Council

Objectives
- Highlight an issue with significant impact on Virginia's future.
- Present a Virginia-specific message.
- Create excitement for potential change.
- Bring a strong group of leaders together.
- Be practical to ensure outcomes can be applied.
- Demonstrate the use of *The Virginia Report*.

2005 Forum
Theme - Competing in the 21st Century: Moving Virginia's Human Capital Meter
Framing Question - What can the Commonwealth do to meet the human capital requirements of tomorrow's economy?
Date - November 30 – December 1, 2005
Location - Richmond Marriott

Key Elements:
- Crossfire Panel Discussion – *Potential Panelists: Richard Florida & William Lewis*
- Possible Futures for Virginia's Economy - Plausible predictions developed by economists or futurists
- Economic Transformation and Human Capital Development Case Studies (Application to Virginia) – *Potential Panelists: William Lewis, Eugene Trani, Nandan Nilekani*
- Deliberative Dialogue – *Virginia Human Capital Issues Book Approaches:*
    - *Develop human capital strategically (Align education and training with strategically-targeted clusters and centers of innovation and research; ivnvest in high growth sectors, research and higher education).*
    - *Spread human capital development efforts throughout society (Improve K-12 educational system to ensure adequate preparation for continued education or employment; ensure strong safety net and lifelong educational opportunities for all citizens).*
    - *Empower businesses, individuals and their communities (Decentralize workforce development, training and education to be proactive in the presence of rapidly changing market forces.).*
- Business, Education and Government Reaction Panel
- Regional Call-to-Action

CHARTING THE COURSE FOR ECONOMIC CHANGE

Chris Chmura, Chmura Analytics & Economics

Council on Virginia's Future

Macro Economy Indicators:
- o Economic Growth
- o Outstanding Business Climate
- o Strong Economic Base
- o **Competitive Workforce**

Macro Education Indicators:
- o Educational Attainment
- o K-12 Preparation and Attainment
- o Higher-Education Preparation and Attainment
- o **Career Preparation and Attainment**

Industries — Occupations and Jobs — People — Knowledge and Skills — Education & Training

Workforce Quantity ⟶ **Human Capital Development** ⟵ Workforce Quality

- • **Workforce Preparation**
  - o *Educational & Skills Attainment*

- • **Workforce Development**
  - o *Grow, Retain, Retrain, Recruit*

- • **Workforce Attainment**
  - o *Average Wages & Salaries*

Integration of education, workforce training and employment data

NEXT STEPS

Jane Kusiak

WHERE WE'RE GOING

- Refine, vision, long-term objectives and indicators.
- Refine agency strategic plans and align with budget.
- Determine approach for information platform and website.
- Establish the Virginia Futures Forum as an annual event.
- Prepare *The Virginia Report.* Develop remaining objectives and continue to develop the three current areas of focus.
- Provide seamless transition to the next administration.
- Identify future emphasis for the Council.
  - Explore ideas at small meetings.
  - Explore ideas with gubernatorial candidates.
  - Discuss at the December Council meeting.
- Develop a budget and staffing plan to reflect consensus on the future mission.
- Next Council meeting: December 16, 2005, 12:00 - 2:00 p.m.

INFORMATION PLATFORM AND WEBSITE

Presentation and Discussion

- Concept Development & Requirements: Performance Data Hierarchy - Rodney Willett, The North Highland Company

- Demonstration of The Virginia Atlas of Community Health - Jeff Wilson, formerly, the Turning Point & Strategic Planning Coordinator for the Department of Health and the Director of the Virginia Center for Healthy Communities

PERFORMANCE DATA HIERARCHY

Current State

| Agency Performance Measures Per Strategic Planning and Performance-based Budgeting |
| Agency Dashboards (VITA, VDOT) |
| Virginia Results/Agency Web Sites |

| Universe of Macro Performance Indicators (Derived from population-based data) |
| GOSAP | Atlas |
| JobsEQ |

1 - 3 months

Web Enable Agency Performance Measures

Web Enable Council's Macro Indicators

4 - 6 months

Develop Requirements for Data Integration and Analytics

6 months +

Develop and Implement Policy Information Architecture to Enhance Policy Making

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Business Climate Survey

ISSUE
No Virginia-specific method to measure and monitor the Commonwealth's business climate currently exists; therefore, a method must be created.

BACKGROUND
As part of the development of a set of macro performance indicators for the Council's economic preservation/enhancement objective, the Economy Workgroup reviewed several existing economic and business climate national rankings to determine whether they were suitable for monitoring Virginia's business climate. The Workgroup found that no existing rankings or business surveys sufficiently met Virginia-specific needs. The existing rankings/surveys were too narrowly focused on a few business issues and/or were not designed to provide the level of specificity needed to enable the development of strategies on how best to enhance Virginia's business climate.

As a result, the Economy Workgroup established a framework for exploring the development of a Virginia-specific business climate survey (see Attachment I). The purpose of the survey would be to solicit qualitative and quantitative data from businesses regarding Virginia's business climate to determine: (1) if Virginia has a business-friendly environment, (2) how business leaders feel about Virginia and how responsive the Commonwealth is to meeting their needs, (3) if there are barriers that the State has created and can remove, and (4) what services businesses receive and if they are satisfied with said services. Overall, the survey should help answer: What makes the difference in why a business comes, stays or expands?

The topics to be covered in the survey, as discussed by the workgroup, include the following: funding barriers, regulatory barriers, legal barriers, costs, quality of life, workforce quality, transportation, healthcare costs and business assistance/development needs in the "new" economy.

In addition, the Economy Workgroup discussed the need to develop a two-pronged approach that includes interviews with top-level executives from large companies and a broader-based paper and pencil/web-based survey of smaller firms. The importance of face-to-face interviews with lead executives representing companies that have significant operations in Virginia is that doing so will provide access to those same firms that also have operations outside Virginia. This will provide the opportunity to ask how Virginia compares to other states in terms of business climate.

The Economy Workgroup established the *Business Survey Taskforce* to develop and recommend the survey project scope and purpose. After reviewing other business climate survey designs and methodologies, the following survey scope and possible approaches were developed (see Attachment II for a list of surveys and indices reviewed):

Scope

Proposed categories of questions (see Attachment II for a list of possible questions):
1. Components of the business climate
2. Level of optimism/pessimism
3. Business conditions assessment
4. Company reactions to the business climate
5. Business "demographics"

Possible Approaches

	Scenario A	Scenario B	Scenario C
Number of executive interviews	75	50	30
Total sample for written survey	1200	800	360
Flexibility in analysis	High—could analyze by region and several other subgroup combinations	Medium—could analyze by region and a few subgroup combinations	Low—could analyze on statewide level only
Cost*	≤ $100,000	≤ $70,000	≤ $40,000

* The Tayloe Murphy Foundation will provide partial funding for survey development, implementation and analysis.

RECOMMENDATION
Proceed with the development and implementation of the business climate survey, consistent with the scope and Scenario A approach outlined above**,** to establish a method for measuring progress against our long-term objective of *being a national leader in the preservation and enhancement of our economy*. The proposed scope and expansive approach will provide a solid baseline of information and may be modified in subsequent years.

ATTACHMENT I
BUSINESS CLIMATE SURVEY DEVELOPMENT FRAMEWORK

- *Business Climate Survey Development Framework* -

Purpose: To survey businesses regarding Virginia's business climate

Objectives:
- To determine if Virginia has a business-friendly environment
- To determine how business leaders feel about Virginia and how responsive the Commonwealth is to meeting their needs
- To determine if there are barriers that the State has created and can remove: What makes the difference in why a business comes, stays or expands?
- To identify what services businesses receive and if satisfied with said services

Key Elements:
- Method of delivery: (1) focus groups to validate instrument, (2) face-to-face interviews with top CEOs, in addition to a (3) paper/web-based survey
- Possible topics:
  - Funding barriers
  - Regulatory barriers
  - Legal barriers
  - Costs
  - Quality of life
  - Workforce quality
  - Transportation
  - Healthcare costs
- Business assistance/development needs in the "new economy"
- Sample stratification considerations: employer size, industry sector, location, multi-state businesses, and establishments and firms
- Analysis: use of survey results to enhance economic development strategies and increase the number of businesses relocating, expanding or starting-up in Virginia

Project Oversight & Management:
- The Economy Workgroup established the *Business Survey Taskforce* to develop and recommend the project scope and purpose. Project leaders are Dr. David Urban (VCU) and Dr. Tom Guterbock (UVA)

Funding:
- The Tayloe Murphy Foundation, represented by Dr. Bill Sihler, will provide partial funding for survey development, implementation and analysis.

ATTACHMENT II
VARIOUS BUSINESS CLIMATE SURVEYS AND INDICES REVIEWED

Surveys Reviewed:

Survey Sponsor	Survey conducted by
State of New York	Alfred University
New York State Economic Development Council	
State of Maryland	
State of California	Charlton Research Company
City of Greensboro	North Carolina A&T State University
Various States	National Federation of Independent Business
State of Washington	Washington Policy Center

 Indices Reviewed:
- The Council for Enterprise Development (CFED) / *Development Report Card (DRC) for the States, 2004*
- The Pacific Research Institute for Public Policy (PRI) / *U.S. Economic Freedom Index, 2004*
- Inc. Magazine / *Top 25 Cities for Doing Business in America, 2004*
- The Small Business & Entrepreneurship Council (SBE Council or SBEC) / *Small Business Survival Index, 2004*
- Site Selection Magazine / *Competitiveness Award, 2005*
- The Tax Foundation / *State Business Tax Climate Index, 2004*
- Richard Florida Creativity Group / *Creativity Index, 2003*
- The Milken Institute / *State Technology and Science Index, 2004*
- The Progressive Policy Institute (PPI) / *State New Economy Index, 2002*
- The Government Performance Project (GPP) / *Grading The States, 2005*
- State Policy Reports / *The Camelot Index, 2005*

Business climate indices take a large number of economic and other indicators and weight them to create a single index. The variables used vary depending on the focus and intent of the index.

Types of indices:
- *Business Cost* – Emphasizes cost of doing business (*e.g.*, Small Business Survival Index, published by Small Business and Entrepreneurship Council)
- *Policy* – Focus on variables that measure a state's business climate in relation to a specific policy orientation (*e.g.*, Economic Freedom Index, published by Clemson University)
- *Livability* – Stress quality of life issues (*e.g.*, Most Livable State, published by Morgan Quinto Press)
- *High-Technology* – Focus on variables pertaining to high-tech and "new economy" issues (*e.g.*, New Economy Index, published by Progressive Policy Institute)
- *Holistic* – Broadly based (*e.g.*, Development Report Card for the States, published by Corporation for Enterprise Development)

ATTACHMENT III
GROUPS OF SURVEY TOPICS SUMMARIZED
FROM VARIOUS BUSINESS CLIMATE SURVEYS

(1) Components of the business climate:
- Taxes—amount of business/payroll/property/gasoline taxes; extent of tax paperwork?
- Labor force—availability of qualified workers; minimum wage; educational preparation of workers; assessment of benefit/wages costs?
- Education—investment in university R and D; access to research university; quality of education?
- Transportation—road maintenance; cost of/access to air transportation; cost of relieving road congestion; transportation infrastructure?
- Insurance—availability/cost of health insurance; cost of industrial insurance; cost of workers' compensation insurance?
- State/local government attitude—pro-business vs. anti-business; supportive/not supportive; citizens' attitudes about new business?
- Regulatory burden—state and local regulations; land use and environmental regulations; discrimination laws; minority contracting laws; cost of licensing/ enforcement of codes?
- Energy—availability and cost of electricity and other energy?
- Business incentives—availability; have they been offered/provided?
- Economic development programs—workforce training; business recruiting; help with international business; availability of capital/credit?
- Quality of life—housing availability and costs; recreational opportunities; crime rate?
- Telecommunications—access to high speed?
- Government management/how things run in the state; government accountability/leadership; government responsiveness; state on right track or wrong track; size of government; economic policies?
- Availability of sites?
- Costs - land; leasing/buildings?
- How does Virginia compare to other states in terms of business climate (asked of people whose companies have operations within and outside Virginia)?

(2) Business "demographics":
- Number of employees?
- Sales volume?
- Location (region)?
- Line of business?
- Type of business organization?
- Gender/race of owner?
- Revenue/sales volume?
- Square footage?
- Position title of respondent?
- Operations within Virginia exclusively, or outside Virginia as well?

(3) Level of optimism/pessimism:
- Business conditions improving?
- Business prospects for your firm in the next several months?
- Optimism about local/regional economy?
- More or less optimistic than a year ago?

(4) Business conditions assessment:
- Comparison of business conditions in U.S./state/local area compared to a year ago?
- Expected manufacturing employment in the next 12 months?
- Have changes in business conditions been favorable/unfavorable?
- Are business conditions in the state/industry/your company better or worse than a year ago?
- Rating of business conditions in your market area?
- Financial outlook of the US?
- Interest rate outlook?
- Employment outlook?
- Industry sectors that the state/area has the greatest opportunity to attract?

(5) Company reactions to the business climate:
- Revenue/employment increases in the past year? Expected in the coming year?
- Have you upgraded technology or changed processes?
- Expenditures on capital equipment/vehicles/facilities?
- Expenditures on training?
- Changes in your average selling prices in the last year?
- Can you increase sales by 10% without new employees or equipment?
- Are you involved in other startups of other firms?
- Will you add employees/reduce the workforce in the next year?
- Will you relocate in state/out of state?

The Roadmap for Virginia's Future*: Regional Analysis & Refinement

ISSUE
The Council on Virginia's Future is creating a scorecard to monitor progress against long-term objectives established for the Commonwealth. In addition, the Council will hold forums to discuss the key drivers of a significant issue and identify the strategies that can produce better outcomes. Both of these activities require a regional viewpoint.

Therefore, the Council needs to develop a regional model to accomplish the following:
- Enable comparisons of outcomes (e.g., high school graduation rates) reflected in the Council's performance indicators
- Facilitate the use of regional forums to further develop and implement strategies designed to improve outcomes

BACKGROUND
For the past two years, the Council has used a seven-region system (found in Appendix A) for its analytical purposes. However, there are several other regional divisionary systems used by state and local agencies. Descriptions of the systems listed below can be found in Appendices B and C.

- Community Services Boards (CSBs)
- Virginia Economic Development Partnership (VEDP) Marketing Regions
- Virginia Department of Health (VDH) Health Service Areas (HSAs)
- Virginia Department of Transportation (VDOT) Districts

- Planning District Commissions (PDCs)
- Virginia Technology Alliance (VTA) Regional Councils
- Workforce Investment Boards (WIBs)
- U.S. Census Core Based Statistical Areas (CBSAs) – Appendix C

A two-pronged approach was taken to reach the final recommendation. The first part consisted of comparing the borders of the Council's seven current regions to the borders of the other regional systems. These other systems fell into two categories: all-inclusive and non-inclusive. All-inclusive systems assigned each independent city and county to a designated region while non-inclusive regional systems (CSBs, VTA Technology Councils and CBSAs[1]) did not.

The second prong of this analysis and recommendation consisted of actively soliciting feedback from members of both the Council's Planning Workgroup and the Economy Workgroup, and from Mr. Ted McCormack of the Commission on Local Government.

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[1] Note: The CBSAs examined in this analysis were the Metropolitan and Micropolitan Statistical Areas as defined by the Census in November of 2004, the latest revision available. The U.S. Census Bureau updates its CBSA definitions annually to reflect the changing degrees of economic and social integration in and around a substantially populated "core" area. See Appendix C for more information.

The ideas and critiques generated from these meetings were then judged on their feasibility, ability to keep CBSAs intact, and agreement with the depth and breadth of the Council's aims and long-term vision. The confluence of these factors are embodied in the following five criteria:

1. **Determination of the "Right Number" of Regions:** Regional systems splitting the Commonwealth into a small number of components will detrimentally impact implementation of the Council's vision by masking inequities. Inversely, using a large number of regional divisions will result in the dismantling of comparable, long-established areas.
2. **Civic Cohesion:** Achieving regional harmony requires the local discovery and preservation of complementary strengths and mutual traits. At the same time, the weaknesses shared by municipalities composing each region will become increasingly apparent, raising them to the fore of public and private discourse.
3. **Stimulation of Leadership & Cooperation:** By identifying the influential persons, groups and institutions, core assemblages of leaders representing their region can be created to address issues of larger territorial magnitude. The framework for increased inter-regional and intra-regional cooperation falls in place once familiarity is established among these leaders.
4. **Flexibility:** Problems and priorities constantly evolve; therefore a regional system able to mature and adapt both logically and creatively to the future is an absolute necessity.
5. **Rational & Accountable Divisions:** The Council's decision to divide the Commonwealth should be based on quantifiable, unbiased information that reflects real situations and trends. Accountability measures also must exist for keeping consistent records from the beginning of the divisionary process to every additional refinement.

The first prong in the approach involved comparative analysis using the borders of each regional system and the Council's own system. This resulted in the following notable findings:

- The closest correlation between the borders of the other regional systems and those of the Council's current regions occurred with the borders of the Southwest and Valley regions;
- The extent of the Council's current Northern regional border was diminished in almost every comparison, except when compared to CBSAs and VEDP's Marketing Regions;
- Eleven of the fifteen CBSAs fit within the Council's current seven regions, the exceptions being the "Roanoke, VA," "Virginia Beach-Norfolk-Newport News, VA-NC," "Washington-Arlington-Alexandria, DC-VA-MD-WV," and "Richmond, VA" CBSAs;
- Territorial overlap occurred among four of the ten VTA Regional Councils;
- CSBs included all of Virginia except for Halifax, Mecklenberg and Brunswick counties;
- In spirit, PDCs closely matched the Council's vision by their acknowledgment of the need to cooperatively transcend local boundaries to address regional issues.

From this point, it was concluded that none of the existing systems on their own are truly compatible with the Council's aims and/or meet each of the criteria describing the Council's ideal regional system. However, the seven current Council regions provided a

good starting place due to their high potential for fulfillment of the first three criteria. To realize the final two criteria, it was recommended that the seven current Council regions be hybridized with Virginia's fifteen CBSAs. A product of this hybridization was the creation of an eighth, or "West Central," region. This original recommendation was characterized by the following:

- The Northern Council region corresponded with the borders of the "Washington-Arlington-Alexandria, DC-VA-MD-WV" CBSA;
- The Hampton Roads Council region corresponded with the borders of the "Virginia Beach-Norfolk-Newport News, VA-NC" CBSA;
- The Central Council region expanded its southern border in order to include the entirety of the "Richmond, VA," CBSA but shortened its western border due to the extraction of the "Lynchburg, VA" CBSA into the new West Central region;
- The Council's current Valley, Southwest and Southside regions lost a portion of their territory due to the extraction of the "Roanoke VA" CBSA into the new West Central region but each contained other CBSAs, cities and counties;
- The "Lynchburg, VA" and "Roanoke, VA" CBSAs were combined to create the new West Central region. The creation of this new region was at first justified by the following reasons:
  o Comparable territorial contraction and expansion at the CBSA level in the past 20 years;
  o Both CBSAs continue to experience similarly unfavorable economic conditions—either zero growth (Lynchburg) or full recession (Roanoke);
  o Components of each CBSA are tied to the tobacco farming industry;
  o 75% of the combined original West Central region rests in VDOT's Salem District;
  o "Roanoke-Lynchburg" is one of Nielsen Media Research's 210 national "Designated Market Areas."

In the original recommendation, the Eastern Council region did not contain a CBSA. The borders of the other recommended Council regions surrounding it defined the borders of this region. As originally proposed, this synthesis would make available many useful sources of existing data for the Council's future recommendations—such as any study or report using CBSAs as the unit of analysis. Continued thought in this direction indicated that hybridizing the Council's regions with CBSAs showed other benefits, such as:

- Affording the ability to comparatively analyze Virginia's CBSA-based system with many other CBSAs and even sovereign nations;
- Reflecting actual and projected changes in the population's social, economic and cultural composition, as well as shaping redirection or spread of allocated federal funding based on CBSAs.

At this point, the original recommendation was then viewed and commented on in order to make changes concurrent with the Council's vision, goals and criteria for the project. These actions resulted in the final recommendation.

FINAL RECOMMENDATION

In order to reach an informed and feasible final recommendation, the second prong of the approach was applied. Feedback was formally solicited on three occasions, resulting in the following considerations. The status of their inclusion in the final recommendation is shown in the table below:

SUMMARY OF CONSIDERATIONS	Recommended	Not Recommended
Move the Blacksburg-Christiansburg-Radford MSA from the Southwest Region to the West Central Region. *(Economy Workgroup Meeting - July 11, 2005)*	X	
Use CBSAs to define regions. *(Economy Workgroup Meeting - July 11, 2005)*		X[2]
Move the City of Franklin from the Southside Region to the Hampton Roads Region. *(Council Planning Group Meeting - July 12, 2005)*	X	
Move King and Queen County from the Central Region to the Eastern Region. *(Council Planning Group Meeting - July 12, 2005)*		X[3]
Keep Planning District Commissions intact in the recommended regional system. *(Meeting with Mr. Ted McCormack, AICP - July 27, 2005)*		X[4]

The first accepted consideration, adding the Blacksburg-Christiansburg-Radford MSA to the West Central region, recognized the commuting patterns in the area (especially in regard to the regional airport in the area) and also did not violate any of the five criteria. The second accepted consideration, including the City of Franklin into the Hampton Roads region, recognized the community of interest the City has with the other components of the region and also did not result in the breaking apart of a CBSA. While the idea of anchoring the Council's regions to CBSAs may initially seem problematic when comparing consecutive years, the inherent flexibility of this system is its strength. Data can easily be retrofitted into a "benchmark" year for consistent analysis.
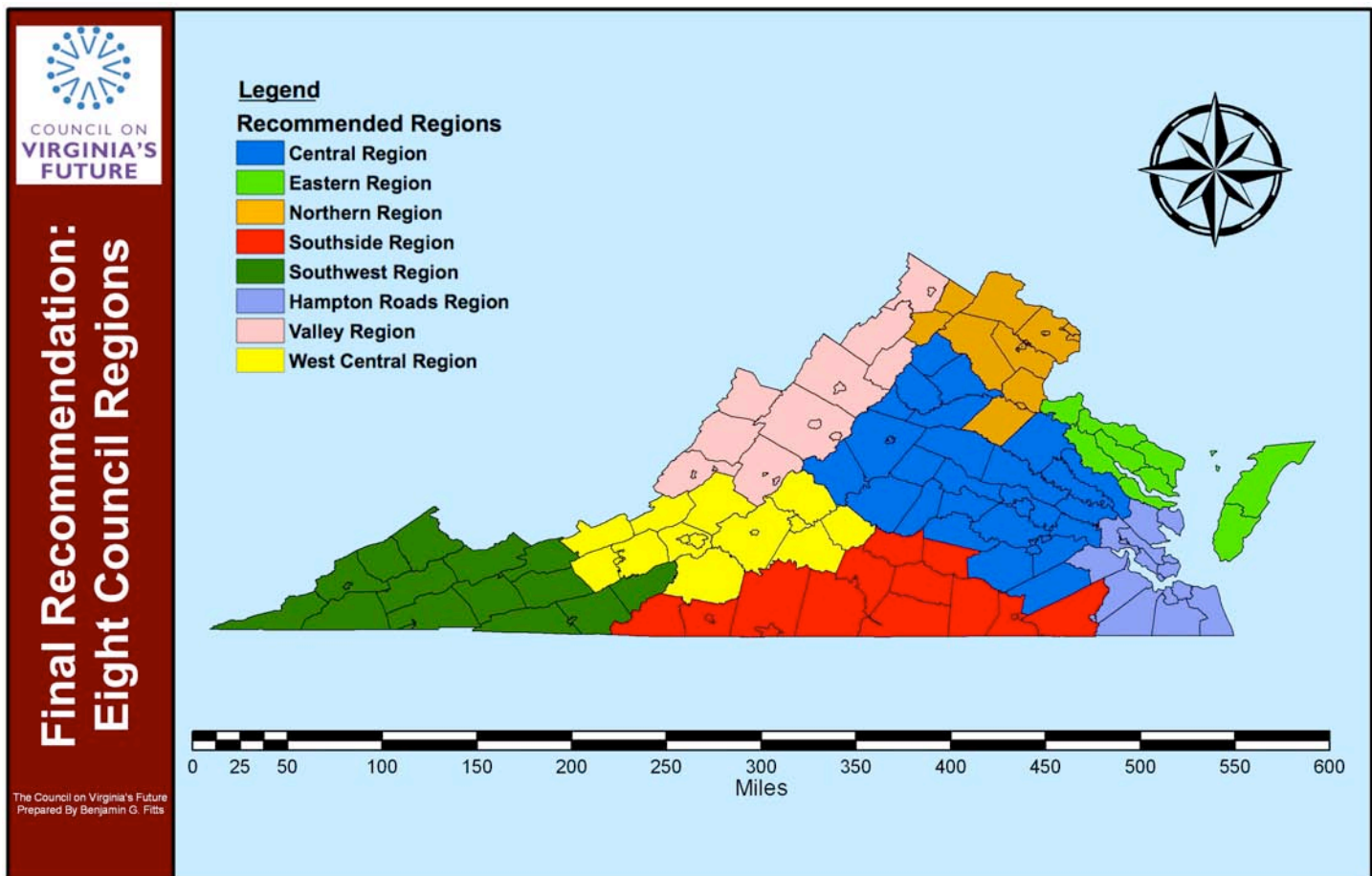
Based on the findings of the regional analysis and feedback, the final recommendation is the creation of eight separate and distinct Council regions across the state (see page 5). This system will provide increased opportunities to gather, analyze and compare outcome and performance data while also bestowing a flexible methodology to discover shared bonds, and stimulate leadership and cooperation. In conclusion, adopting this regional system will enhance the Council's ability to focus, craft and direct policies shaping the Commonwealth's future.

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[2] Taking this action would result in at least 15 different regions, violating the first criterion.

[3] Moving this county to the Eastern Council region from the Central Council region would split apart the Richmond, VA CBSA.

[4] Attempting to keep all PDCs intact would result in the splitting of five different CBSAs.

FINAL RECOMMENDATION: Eight Council Regions

Central	Eastern	Northern	Southside	Southwest	Hampton Roads	Valley	West Central
Albemarle	Accomack	Alexandria	Brunswick	Bland	Gloucester	Winchester	Amherst
Amelia	Northampton	Arlington	Greensville	Bristol	Isle of Wight	Harrisonburg	Appomattox
Buckingham	Northumberland	Fairfax	Emporia	Buchanan	James City	Staunton	Bedford
Caroline	Westmoreland	Fairfax	Danville	Carroll	Mathews	Waynesboro	Bedford
Charles City	King George	Falls Church	Martinsville	Galax	Surry	Buena Vista	Campbell
Charlottesville	Richmond	Fauquier	Patrick	Norton	York	Lexington	Lynchburg
Chesterfield	Lancaster	Loudoun	Henry	Lee	Chesapeake	Covington	Botetourt
Colonial Heights	Essex	Manassas	Pittsylvania	Scott	Hampton	Alleghany	Craig
Culpeper	Middlesex	Manassas Park	Halifax	Wise	Newport News	Bath	Franklin
Cumberland		Prince William	Charlotte	Dickenson	Norfolk	Highland	Roanoke
Dinwiddie		Stafford	Prince Edward	Russell	Poquoson	Rockbridge	Roanoke
Fluvanna		Fredericksburg	Nottoway	Washington	Portsmouth	Augusta	Salem
Goochland		Spotsylvania	Mecklenburg	Tazewell	Suffolk	Rockingham	Giles
Greene		Warren	Lunenburg	Smyth	Virginia Beach	Page	Montgomery
Hanover		Clarke	Southampton	Grayson	Williamsburg	Frederick	Pulaski
Henrico				Wythe	Franklin	Shenandoah	Radford
Hopewell				Floyd			
King and Queen							
King William							
Louisa							
Madison							
Nelson							
New Kent							
Orange							
Petersburg							
Powhatan							
Prince George							
Rappahannock							
Richmond							
Sussex							

APPENDIX A: Seven Current Council Regions
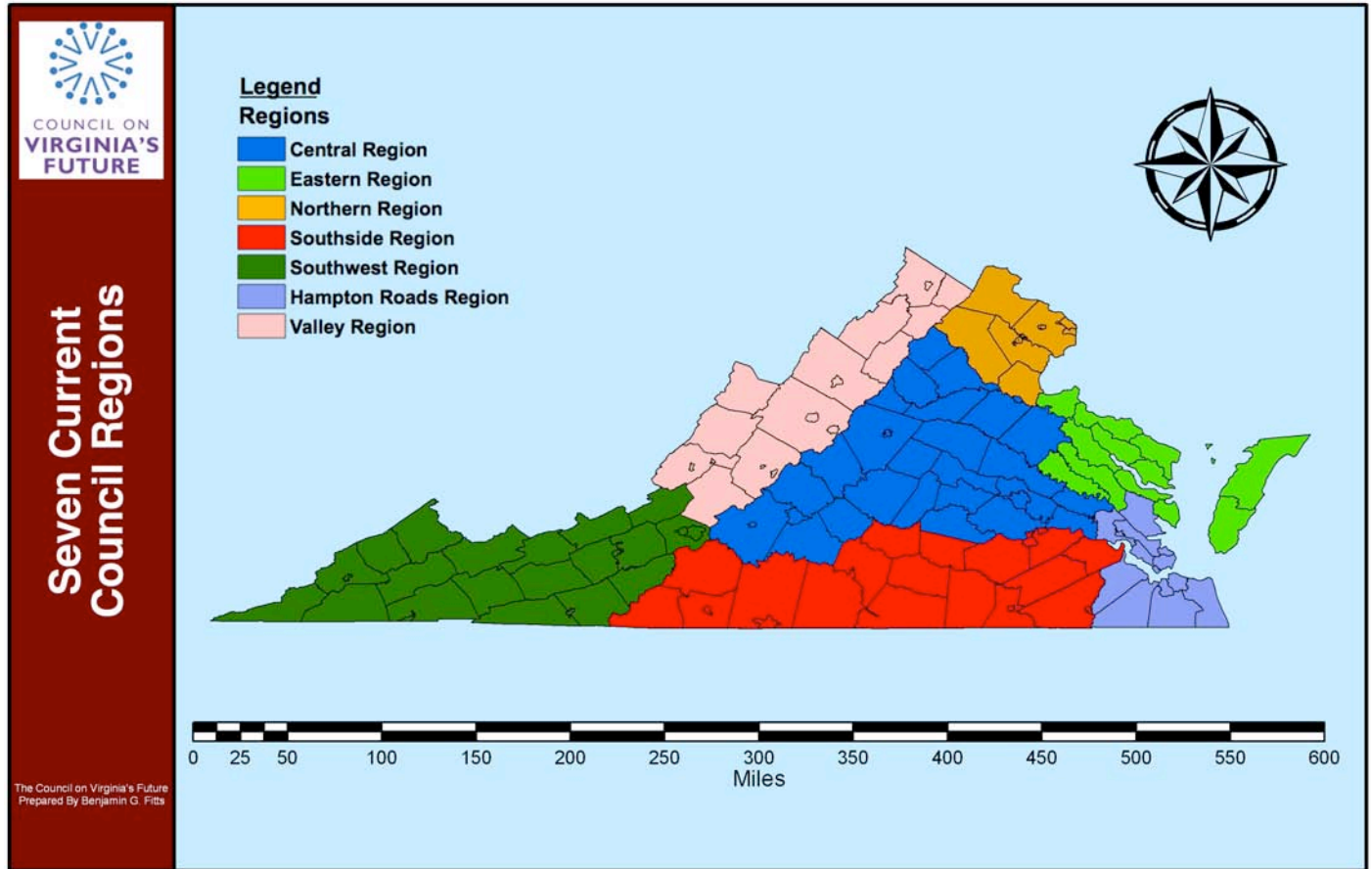
Central	Eastern	Northern	Southside	Southwest	Hampton Roads	Valley
Albemarle	Accomack	Arlington	Brunswick	Bland	Gloucester	Alleghany
Amelia	Essex	Fairfax	Charlotte	Buchanan	Isle of Wight	Augusta
Amherst	King and Queen	Fauquier	Dinwiddie	Carroll	James City	Bath
Appomattox	King George	Loudoun	Franklin	Craig	York	Botetourt
Bedford	King William	Prince William	Greensville	Dickenson	Chesapeake	Clarke
Buckingham	Lancaster	Stafford	Halifax	Floyd	Hampton	Frederick
Campbell	Mathews	Alexandria	Henry	Giles	Newport News	Highland
Caroline	Middlesex	Fairfax City	Lunenburg	Grayson	Norfolk	Page
Charles City	Northampton	Falls Church	Mecklenburg	Lee	Poquoson	Rockbridge
Chesterfield	Northumberland	Manassas	Nottoway	Montgomery	Portsmouth	Rockingham
Culpeper	Richmond	Manassas Park	Patrick	Pulaski	Suffolk	Shenandoah
Cumberland	Westmoreland		Pittsylvania	Roanoke	Virginia Beach	Warren
Fluvanna			Prince Edward	Russell	Williamsburg	Buena Vista
Goochland			Prince George	Scott		Covington
Greene			Southampton	Smyth		Harrisonburg
Hanover			Surry	Tazewell		Lexington
Henrico			Sussex	Washington		Staunton
Louisa			Colonial Heights	Wise		Waynesboro
Madison			Danville	Wythe		Winchester
Nelson			Emporia	Bristol		
New Kent			Franklin City	Galax		
Orange			Hopewell	Norton		
Powhatan			Martinsville	Radford		
Rappahannock			Petersburg	Roanoke City		
Spotsylvania				Salem		
Bedford City						
Charlottesville						
Fredericksburg						
Lynchburg						
Richmond City						

APPENDIX B: Regional Analyses And Descriptions

Regions	
	39
Established	
	1968
Purpose	
To provide counseling, health and educational services for the Commonwealth's most "at-risk" citizens such as infants, those with mental or substance abuse problems, and the elderly.	
Analysis	
Strong correlations are found between groups of CSBs and the external borders of the Council's Southwest, Valley and Eastern regions. The Northern, Central, Southside and Hampton Roads Council regions ranged from medium to heavy fragmentation of external borders in that order. From the systems studied, this system has the most regions.	

Virginia Association of Community Services Boards / CSBs

Figure 1:   **Current Community Services Boards**
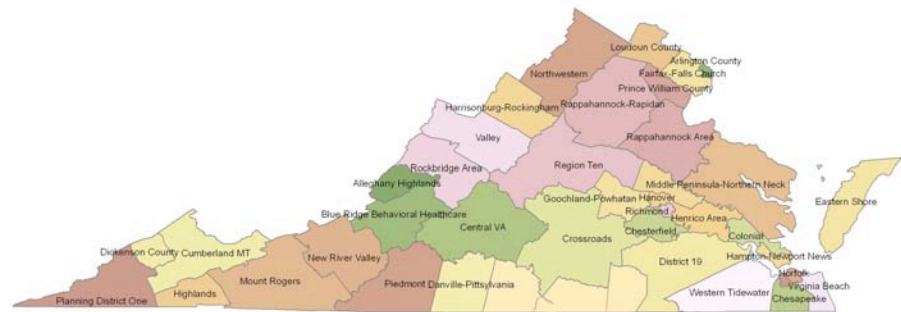
Figure 2:   **CSBs Overlaid with Current Council Regions**

APPENDIX B: Regional Analyses And Descriptions

Virginia Economic Development Partnership / VEDP Marketing Regions		
	Regions	6
	Established	1980's
	Purpose	By grouping localities with similar economic profiles, the VEDP can easily assist businesses looking to relocate.
	Analysis	The Council's Southwest and Valley regions have close border analogues with the VEDP's "Valley" and "Southwestern Virginia" regions. VEDP's "Southside Virginia" region absorbs much of the Council's Central region. Also nibbling away at the latter is VEDP's "Northern Virginia" region. The Council's Eastern region is absorbed into VEDP's "Central Virginia" and "Hampton Roads" regions--the Middle Peninsula and Northern Neck are found in VEDP's "Central Virginia" region while the Eastern Shore is found in VEDP's "Hampton Roads" region.

Figure 3: **Current VEDP Marketing Regions**
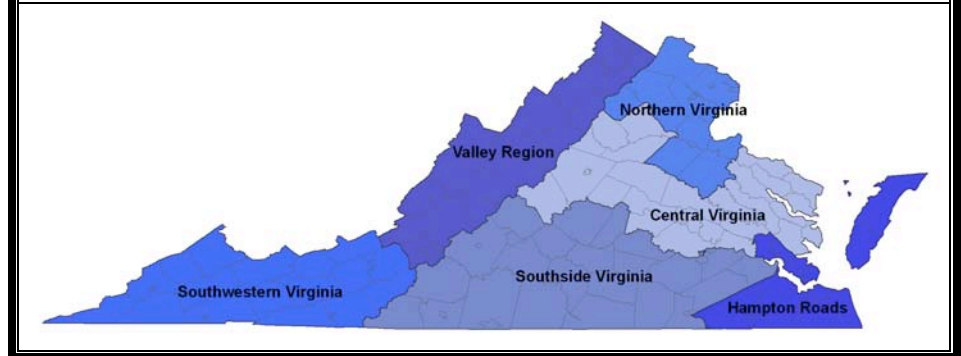
Figure 4: **VEDP Marketing Regions Overlaid with Current Council Regions**

APPENDIX B: Regional Analyses And Descriptions

Regions	5
Established	1990's
Purpose	Created in order to study the effects of geography on the delivery of services.
Analysis	The VDH has fewer regions than any of the other nine systems. Their "Eastern" region virtually merges the Council's Eastern and Hampton Roads regions. While the geographic center of Virginia (found in Buckingham County) remains inside the VDH's "Central Region," it comprises part of its northwestern border. The VDH's "Southwest" and "Northwest" regions are vast, completely splitting the Council's Central region, halving the Northern region and eliminating the Southside region.

Virginia Department of Health (VDH) / Health Service Areas (HSAs)

Figure 5: Current Health Service Areas

Figure 6: Health Service Areas Overlaid with Current Council Regions

APPENDIX B: Regional Analyses And Descriptions

Virginia Department of Transportation (VDOT) / VDOT Districts

Regions	9
Established	1984
Purpose	Using the number of registered vehicles, miles of highway and proximity to major transportation routes, each of VDOT's districts contain offices to coordinate the efficient delivery of services.
Analysis	The closest equivalencies with Council regions include the "Staunton" district, losing its southern tip to the Council's Valley region, and the "Bristol" district, completely contained in the western end of the Southwest region. The Southside and Central regions cease to exist, while the "Hampton Roads" district extends from the Eastern Shore to Greensville County, deeply inside the Council's Southside region.

Figure 7: Current VDOT Districts
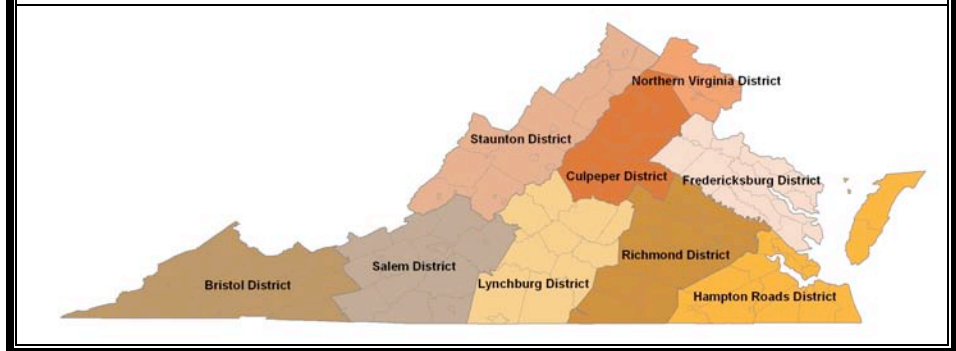
Figure 8: VDOT Districts Overlaid with Current Council Regions

APPENDIX B: Regional Analyses And Descriptions

Regional Cooperation Act / Planning District Commissions (PDCs)

Regions	
	21
Established	
	1968
Purpose	
The Regional Cooperation Act set the Commonwealth's first framework for regional approaches to issues by grouping all independent cities and counties with similar characteristics.	
Analysis	
PDCs fragment the seven Council regions but when combined, some borders roughly match. The "Lenowisco," "Cumberland Plateau," "Mount Rogers" and "New River Valley" PDCs combined would almost create the Southwest Council region. This holds true for the "Central Shenandoah" and "Northern Shenandoah" PDCs, regarding the Valley region. Each of the other PDCs splits the Council's regions with differing degrees of severity.	

Figure 9: Current Planning District Commissions
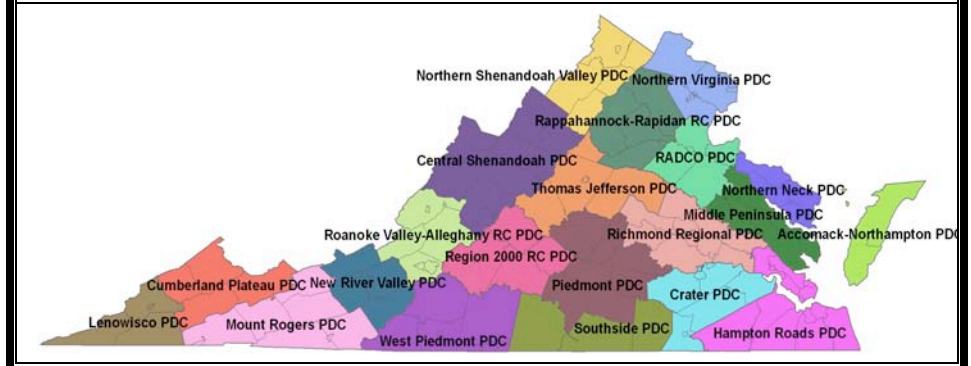
Figure 10: PDCs Overlaid with Current Council Regions

APPENDIX B: Regional Analyses And Descriptions

Regions	10
Established	1998
Purpose	Created independently of each other but later combined to form the VTA, each Regional Council promotes technological strengths in the name of economic development.
Analysis	This is the least-inclusive regional system examined. Large parts of the Southside and Eastern Council regions (and some "islands" in the Central region) go unclaimed. However, the "Shenandoah Valley" and "Hampton Roads" regions closely align with the Council's Valley and Hampton Roads regions. The Central region and most of the Northern region stay partially intact. Overlapping counties between regions also characterize this system.

The Virginia Technology Alliance (VTA) / Regional Councils

Figure 11: Current VTA Regional Councils

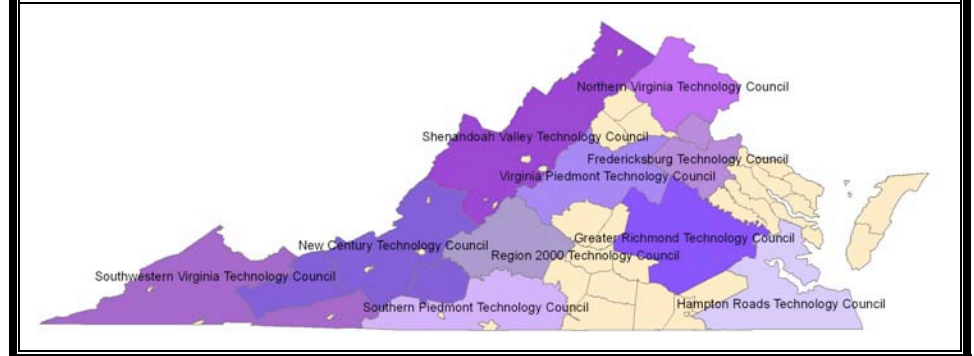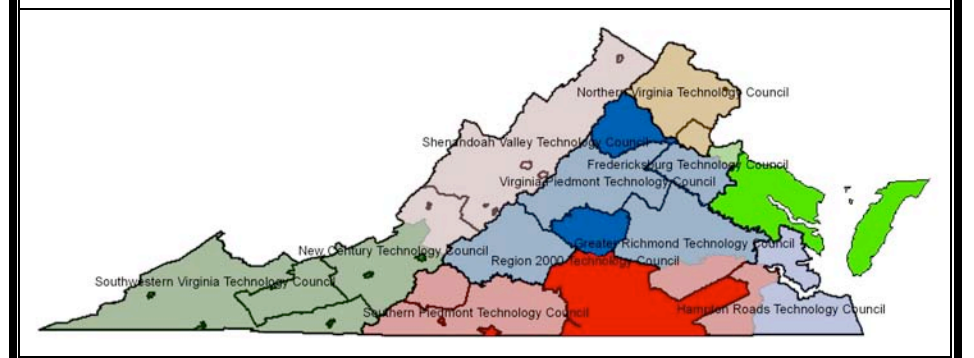**Figure 12:** VTA Regional Councils Overlaid with Current Council Regions

APPENDIX B: Regional Analyses And Descriptions

<table>
<tr><td colspan="2">Regions</td></tr>
<tr><td colspan="2" align="right">17</td></tr>
<tr><td colspan="2">Established</td></tr>
<tr><td colspan="2" align="right">1998</td></tr>
<tr><td colspan="2">Purpose
WIBs function to assist and further educate the un- or under-employed. Each WIB must be a contiguous area with a population of at least 500,000 people unless a singular city or county can fulfill the population requirement.</td></tr>
<tr><td colspan="2">Analysis
The "Southwestern Virginia" and "New River/Mount Rogers" WIBs mesh closely with Council's Southwest region, much like the similar combination of the "Shenandoah Valley" and "Northern Shenandoah Valley" WIBs when compared to the Council's Valley region. The Council's Central and Eastern regions are fractured much like the Hampton Roads and Southside regions.</td></tr>
</table>

Workforce Investment Act / Workforce Investment Boards (WIBs)
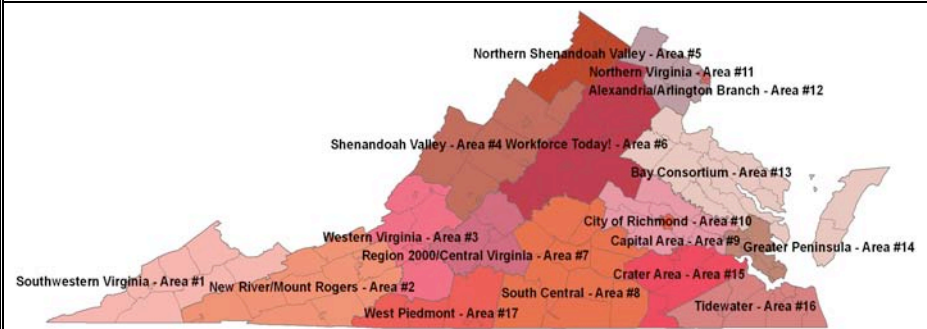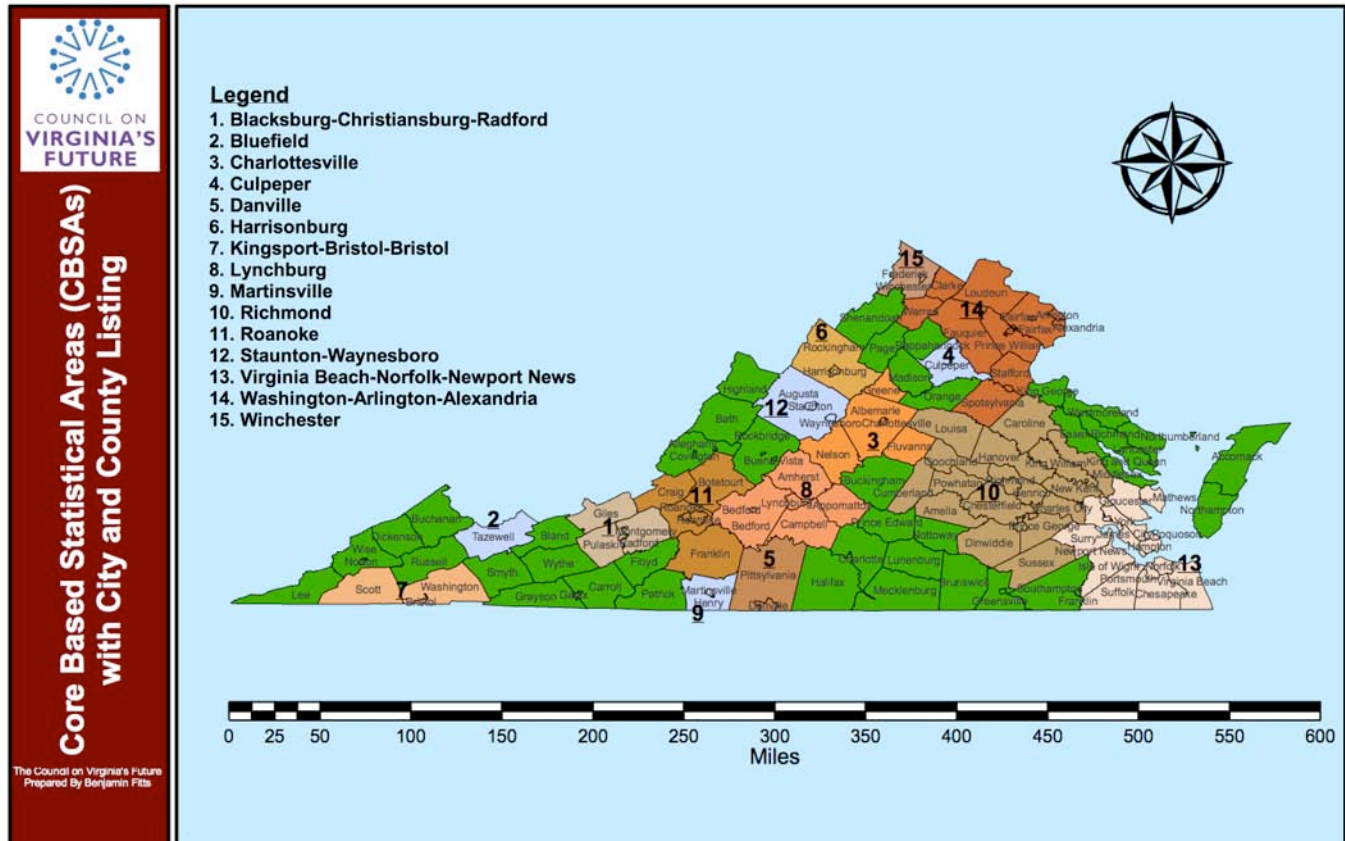

Figure 13: Current WIBs

Figure 14: WIBs Overlaid with Current Council Regions

APPENDIX C:
# CBSA And Non-CBSA Areas With City And County Listing

Core Based Statistical Areas (CBSAs) with City and County Listing

Legend
1. Blacksburg-Christiansburg-Radford
2. Bluefield
3. Charlottesville
4. Culpeper
5. Danville
6. Harrisonburg
7. Kingsport-Bristol-Bristol
8. Lynchburg
9. Martinsville
10. Richmond
11. Roanoke
12. Staunton-Waynesboro
13. Virginia Beach-Norfolk-Newport News
14. Washington-Arlington-Alexandria
15. Winchester

Metropolitan Statistical Areas					
Blacksburg-Christiansburg-Radford	**Kingsport-Bristol-Bristol**	**Richmond**	**Roanoke**	**Virginia Beach-Norfolk-Newport News**	**Washington-Arlington-Alexandria**
Giles County	Scott County	Amelia County	Botetourt County	Gloucester County	Arlington County
Montgomery County	Washington County	Caroline County	Craig County	Isle of Wight County	Clarke County
Pulaski County	Bristol City	Charles City County	Franklin County	James City County	Fairfax County
Radford City		Chesterfield County	Roanoke County	Mathews County	Fauquier County
		Cumberland County	Roanoke City	Surry County	Loudoun County
Charlottesville	**Lynchburg**	Dinwiddie County	Salem City	York County	Prince William County
Albemarle County	Amherst County	Goochland County		Chesapeake City	Spotsylvania County
Fluvanna County	Appomattox County	Hanover County		Hampton City	Stafford County
Greene County	Bedford County	Henrico County		Newport News City	Warren County
Nelson County	Campbell County	King and Queen County		Norfolk City	Alexandria City
Charlottesville City	Bedford City	King William County		Poquoson City	Fairfax City
	Lynchburg City	Louisa County		Portsmouth City	Falls Church City
Danville		New Kent County		Suffolk City	Fredericksburg City
Pittsylvania County		Powhatan County		Virginia Beach City	Manassas City
Danville City		Prince George County		Williamsburg City	Manassas Park City
		Sussex County			
		Colonial Heights City			
Harrisonburg		Hopewell City			**Winchester**
Rockingham County		Petersburg City			Frederick County
Harrisonburg City		Richmond City			Winchester City

Micropolian Statistical Areas			
Bluefield	**Culpeper**	**Martinsville**	**Staunton-Waynesboro**
Tazewell County	Culpeper County	Henry County	Augusta County
		Martinsville City	Staunton City
			Waynesboro City

APPENDIX C:
CBSA And Non-CBSA Areas With City And County Listing

Non-CBSA Cities & Counties	
Accomack County	Lexington city
Alleghany County	Lunenburg County
Bath County	Madison County
Bland County	Mecklenburg County
Brunswick County	Middlesex County
Buchanan County	Northampton County
Buckingham County	Northumberland County
Buena Vista city	Norton city
Carroll County	Nottoway County
Charlotte County	Orange County
Covington city	Page County
Dickenson County	Patrick County
Emporia city	Prince Edward County
Essex County	Rappahannock County
Floyd County	Richmond County
Franklin city	Rockbridge County
Galax city	Russell County
Grayson County	Shenandoah County
Greensville County	Smyth County
Halifax County	Southampton County
Highland County	Westmoreland County
King George County	Wise County
Lancaster County	Wythe County
Lee County	
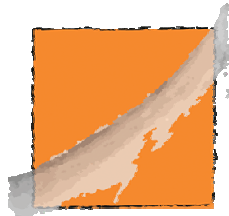
1309 East Cary Street
Richmond, Virginia 23219
www.chmuraecon.com

CHMURAECONOMICS**&**ANALYTICS

Charting the Course for Economic Change: Next Generation of Thought

August 29, 2005

Charting the Course for Economic Change: Next Generation of Thought

- Global changes show U.S. competitive advantage in knowledge is eroding
- The value of education is apparent
  - Individuals earn higher wages/less unemployment
  - Regions grow faster
- The next generation of thinking for Virginia—provide information that is readily accessible and useful in decision making
  - Using education as an example: impact of college degrees
  - Should we enhance and grow one skill such as math?
  - Can strategies be linked to clusters: defense as a core competency in VA?

CHMURAECONOMICS**&**ANALYTICS

Global Changes Show U.S. Competitive Advantage in Knowledge is Stalling

3

CHMURA**E**CONOMICS**&**A**NALYTICS

Cheap Labor in Foreign Countries Drove Trends

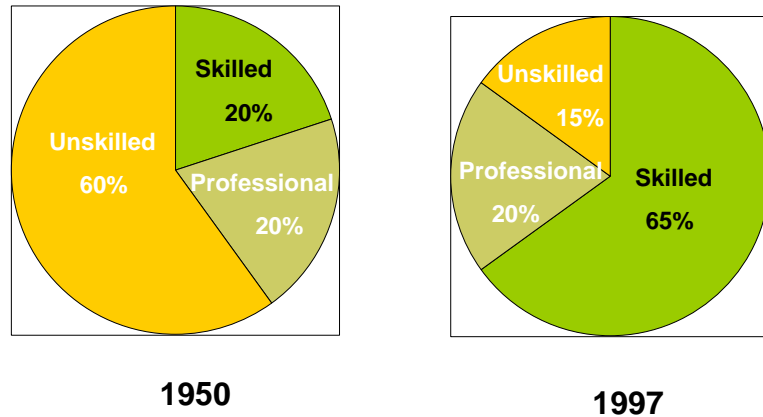**Percentage of Employment in Goods vs. Service, United States**
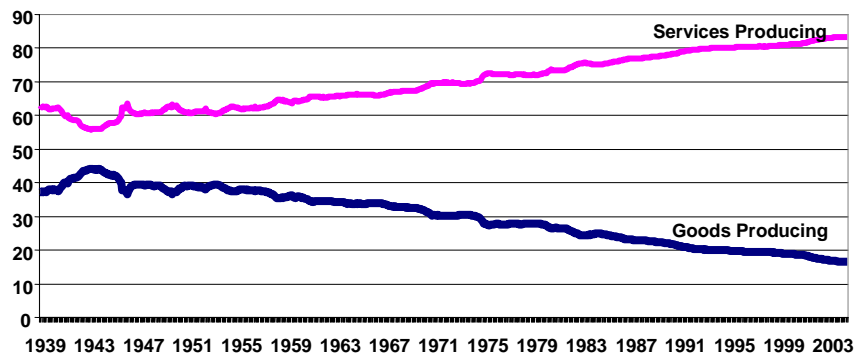
Source: U.S. Department of Labor.

4

CHMURA**E**CONOMICS**&**A**NALYTICS

Portion of Workforce Needing High Skilled Jobs Has Increased

1950 — Unskilled 60%, Skilled 20%, Professional 20%

1997 — Unskilled 15%, Professional 20%, Skilled 65%

National Summit on 21st Century Skills for 21st Century Jobs

5

CHMURAECONOMICS**&**ANALYTICS

At the Same Time, Educational Attainment in the U.S. is Rising
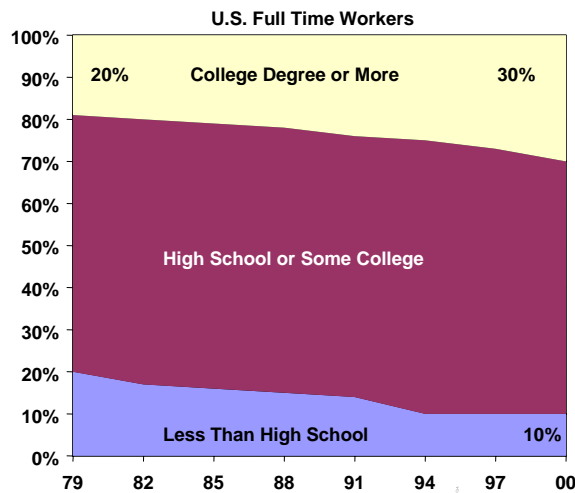
U.S. Full Time Workers

College Degree or More: 20% → 30%

High School or Some College

Less Than High School: 10%

Source: Katharine Bradbury, "Education and Wages in the 1980s and 1990s: Are All the Groups Moving Together?" Boston Fed.

6

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3

Cheap Labor in Foreign Countries and Better Education in US Drove Trends

Average Years of Schooling of Adults, Selected Countries

Legend: 1990, 2000

Country	1990	2000
Brazil	4.0	4.9
China	5.9	6.4
Hong Kong, China	9.2	9.4
India	4.1	5.1
Mexico	6.7	7.2
Singapore	6.0	7.1
South Africa	5.4	6.1
United States	11.7	12.1
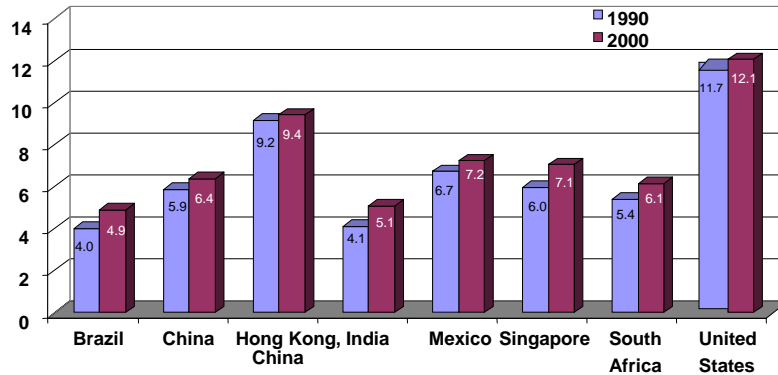
Source: World Bank Database.

7

What About the Future?

Will the U.S. Retain its Competitive Advantage in Education?

8

4

U.S. 8th Grade Math Scores Falling Behind Some Less Developed Countries

8th Grade Math Scores, 1999
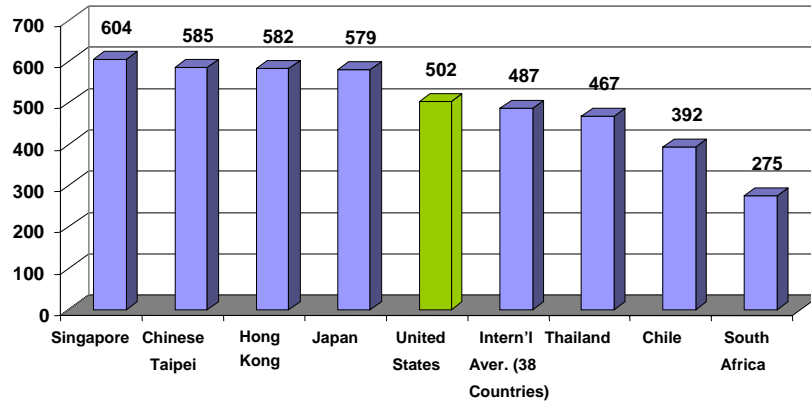
Source: International Association for the Evaluation of Education Attainment.

Figure 4. Distribution of combined mathematics literacy scores of 15-year-old students, by country: 2003

Organization for Economic Co-operation and Development (OECD)
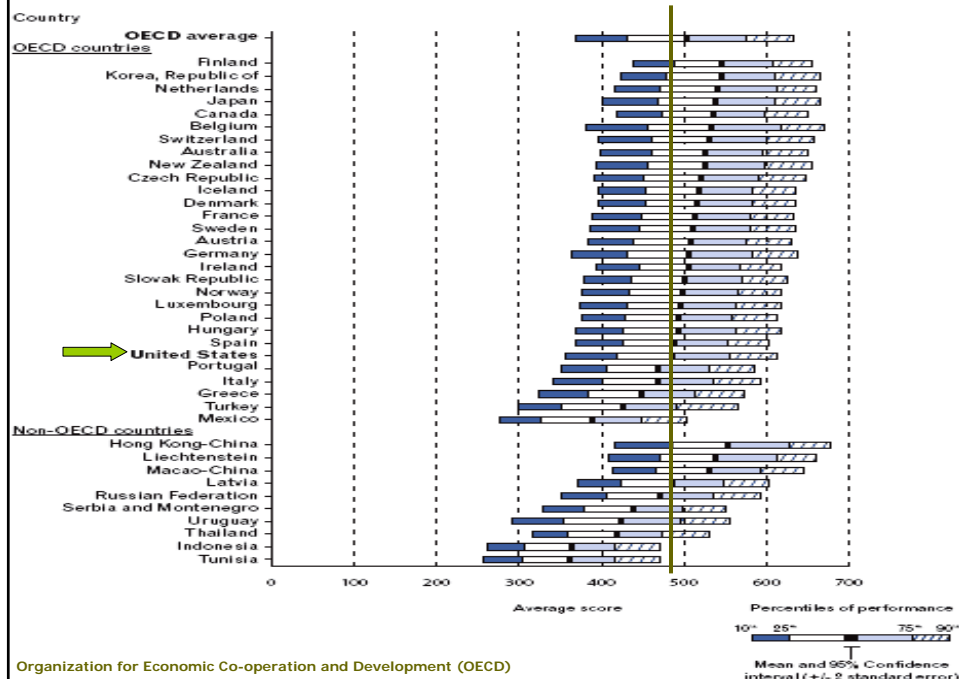
International Competition

Students Enrolled in Postsecondary

(in millions)

	1990	2000	% Change
U.S.	13.7	15.7	+15%
China	3.8	13.6	+258%
India	4.9	9.4	+92%

UNESCO, 2003

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New Participants in the World Economy (Supply Side)

- China, India and Russia = 3 billion people
- 10% highly educated = 300 million people
- USA = 300 million people
- 25% highly educated = 75 million
- Competition for jobs = 375 million people
- USA students/adults will face greater competition in the future than anytime in history
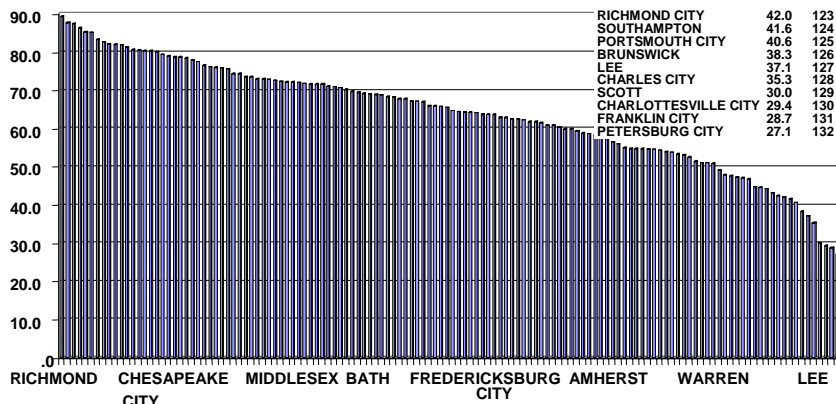
Craig Barrett, INTEL CEO 2004

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These Students Will Be Underpinning Growth in 4 to 8 Years . . .

% of 8th Grade Students Passing Mathematics By School Division, Spring 2002   Bottom 10

RICHMOND CITY	42.0	123
SOUTHAMPTON	41.6	124
PORTSMOUTH CITY	40.6	125
BRUNSWICK	38.3	126
LEE	37.1	127
CHARLES CITY	35.3	128
SCOTT	30.0	129
CHARLOTTESVILLE CITY	29.4	130
FRANKLIN CITY	28.7	131
PETERSBURG CITY	27.1	132

X-axis labels: RICHMOND, CHESAPEAKE CITY, MIDDLESEX BATH, FREDERICKSBURG CITY, AMHERST, WARREN, LEE

Y-axis: .0, 10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0

Source: Virginia Dept. of Education.

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Gaps in Education Lead to Gaps in Pay

- During a House Financial Services Committee hearing, the Federal Reserve Chairman said he believed that growing U.S. income inequality largely reflects differences in workers' education and job skills, not an underlying problem with the economy.

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...Comments From Fed Chairman Alan Greenspan on Education

- Many U.S. workers are not prepared to take advantage of potentially high paying jobs due to a lack of training and skills.

- The growing pay gap reflects the "skill premium" commanded by relatively higher-educated, better-trained workers, and represents "a major problem of matching skills of workers to the technological base of the economy, which I believe is an education issue and requires that we address that as quickly and broadly as we can."

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Importance of Education— Individuals See Higher Wages/Less Unemployment

Knowledge Is The 'Octane'

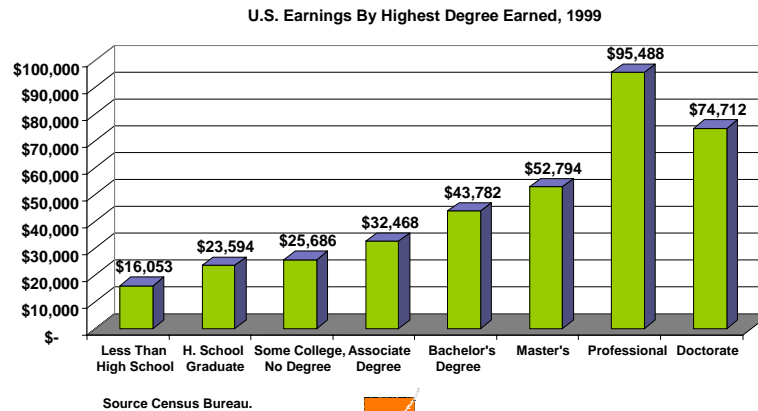*The Economist*, March 25, 2000

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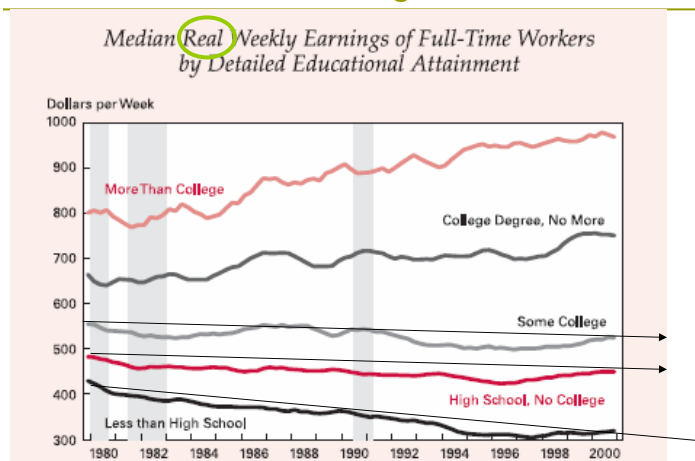# Broad Relationship Between Education and Economic Well-Being Is Apparent

❏ More education is associated with higher wages

U.S. Earnings By Highest Degree Earned, 1999

Source Census Bureau.

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CHMURAECONOMICS**&**ANALYTICS

Broad Relationships Between Education and Economic Well-Being Are Clear

Source: Katharine Bradbury, "Education and Wages in the 1980s and 1990s: Are All the Groups Moving Together?" Boston Fed.
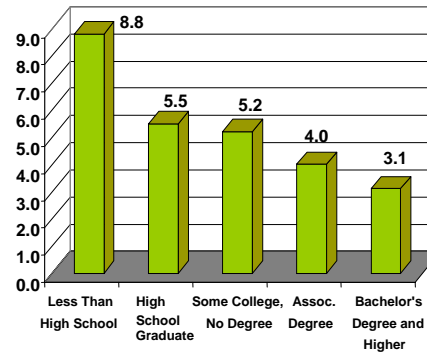
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Broad Relationships Between Education and Economic Well-Being Are Well Established

- More education is tied to higher wages
- More education is associated with a lower unemployment rate

U.S. Unemployment Rate by Education Attainment, 2003

Source: Department of Labor.

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Importance of Education— Regions Grow Faster

The Economist, March 25, 2000

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Studies Show the Impact of Drivers on Economic Growth

- Dallas Federal Reserve Bank
- Kansas City Federal Reserve Bank
- National Bureau of Economic Research (NBER)
- Chmura Economic & Analytics (CEA)

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Dallas Federal Reserve Bank

- Education leverages the value of experience, creating a one-two punch
  - *Working 40 years, high school graduates earn an average $1.5 million*
  - *Long-term payoff rises to $2.6 million with college; $3 million for master's; $4 million for doctorate; $5.3 million for professional degree*

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CHMURAECONOMICS&ANALYTICS

Kansas City Federal Reserve Bank

- Nationally, 1% increase in educational attainment of bachelor's degree = 0.84% rise in concentration of high-knowledge occupations in rural counties (1.13% rise in all counties)
- Local amenities that enhance the quality of life have an influence on knowledge-based growth.
- Knowledge-based activities are less sensitive to traditional infrastructure (highway impact not statistically significant)
- Broadband access – not enough data to assess
- Clusters – knowledge breeds knowledge – For every 100 high-knowledge establishments in 1990, the share rose in 2000 by 0.46% in rural areas

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National Bureau of Economic Research

- Differences in educational attainment between black and white men explain 23% of the difference in black-white incarceration rates.
- A single percent increase in the high school completion rate of men ages 20-60 would save the United States as much as $1.4 billion per year in reduced costs from crime incurred by victims and society at large.
- Education reduces crime.

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Preliminary Regional Growth Model
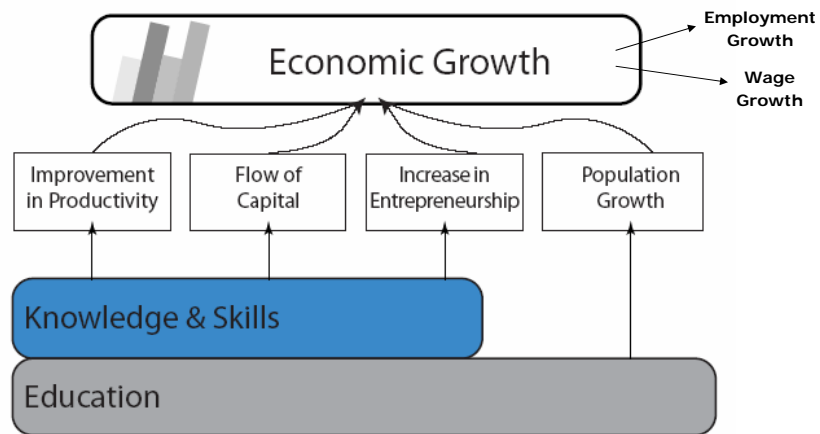
CHMURA **E**CONOMICS **&** **A**NALYTICS

Positioning for the Next Generation

The Economist, March 25, 2000

CHMURA **E**CONOMICS **&** **A**NALYTICS

Positioning for the Next Generation

- If our goal is to build the economy (What?)
- Then which levers do we pull? (How?)
  - Education
    - College degrees
    - Math
    - Link to defense cluster
  - How do we decide where to put resources?
- We need information to make strategic decisions (Why?)

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We Have Plenty of Information Sources

- It's important
  - Free market
  - Policy making
  - Accountability
- It's often available
- It sometimes reflects counter-intuitive relationships
- It's most often used on an ad hoc basis...can be improved to support continual improvement and realignment
  - Don't know how to find it
  - Cumbersome to pull all the facts together
  - Seems inconsistent because we don't all have the know how to create 'robust' models
  - System is not in place to track measures and interactions over time

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It Can be Done...Here's a Glimpse

- ❑ College degrees
- ❑ Math skills
- ❑ Defense clusters

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Impact of College Education on Economy (CEA Model)

	# of Adults with Bachelor's Degree	Job Opportunities (State Wide)	Potential Increase in Per Capita Income	Potential Increase in State Income Tax
Base Line	16%			
5% Increase	21%	3,300	$8.00	$7.11MM

Assume average state income tax to be 5%

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Education Attainment and Household Income

Relationship Between Education Attainment and COLA Household Income
(Correlation Coefficient 0.47)

Source: 2000 Census and CEA
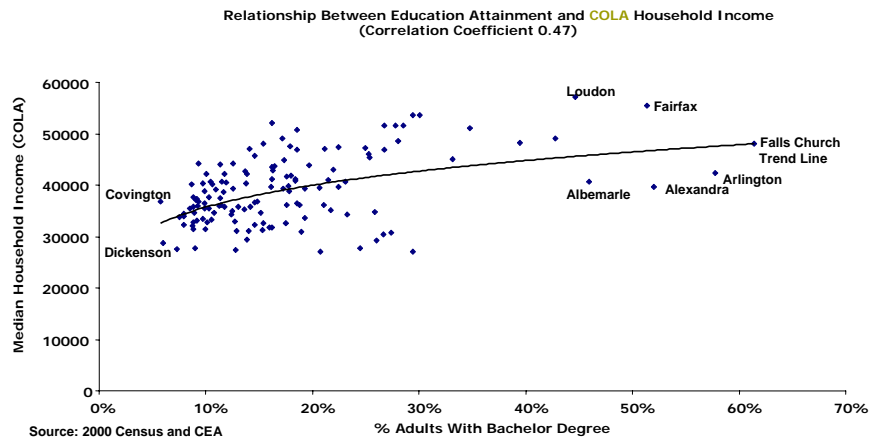
31

Wage Distribution By Region, Cost of Living Adjusted (COLA) No Surprise Given Education Differentials

2004 Annual Real Wage Distribution (COLA Adjusted, 2004 Dollar)

	<$10K	$10-20K	$20-30K	$30-40K	$40-50K	$50-75K	$75-100K	>100K	Total
Central	29%	17%	17%	14%	8%	9%	2.9%	3.0%	100%
Eastern	36%	21%	16%	11%	6%	6%	1.8%	1.5%	100%
Northern	28%	18%	16%	12%	8%	11%	3.7%	3.9%	100%
Southside	26%	19%	19%	15%	8%	9%	2.6%	1.9%	100%
Southwest	25%	18%	18%	15%	9%	9%	2.7%	2.0%	100%
Hampton Roads	33%	18%	15%	11%	8%	9%	2.7%	2.4%	100%
Valley	27%	17%	17%	14%	10%	10%	2.5%	2.2%	100%
West Central	26%	17%	17%	13%	9%	12%	3.2%	2.8%	100%
State	29%	18%	16%	13%	8%	10%	3.1%	3.0%	100%

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A Rising Tide Floats All Boats?

Change in Annual Real Wage Distribution From 2001 - 2004

	<$10K	$10-20K	$20-30K	$30-40K	$40-50K	$50-75K	$75-100K	>100K
Central	-1.0%	0.1%	0.2%	0.2%	0.1%	0.4%	0.0%	0.0%
Eastern	-1.2%	0.1%	0.3%	-0.1%	0.1%	0.2%	0.3%	0.3%
Northern	-1.2%	0.0%	-0.2%	0.0%	0.4%	0.7%	0.1%	0.1%
Southside	0.6%	-0.4%	-1.1%	0.3%	0.2%	-0.5%	0.5%	0.4%
Southwest	0.4%	-0.6%	-0.1%	0.3%	0.6%	-0.2%	-0.4%	0.0%
Hampton Roads	-1.9%	-0.5%	0.1%	0.2%	0.6%	0.8%	0.4%	0.3%
Valley	0.6%	0.0%	-1.6%	-0.5%	0.4%	0.9%	0.1%	0.2%
West Central	-0.7%	-0.2%	-0.7%	-0.2%	0.0%	1.4%	0.3%	0.1%
State	-1.0%	-0.1%	-0.3%	0.0%	0.3%	0.6%	0.2%	0.2%

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The Mission:
GROW THE ECONOMY
Consider ROI to Economy for Alternative Strategies

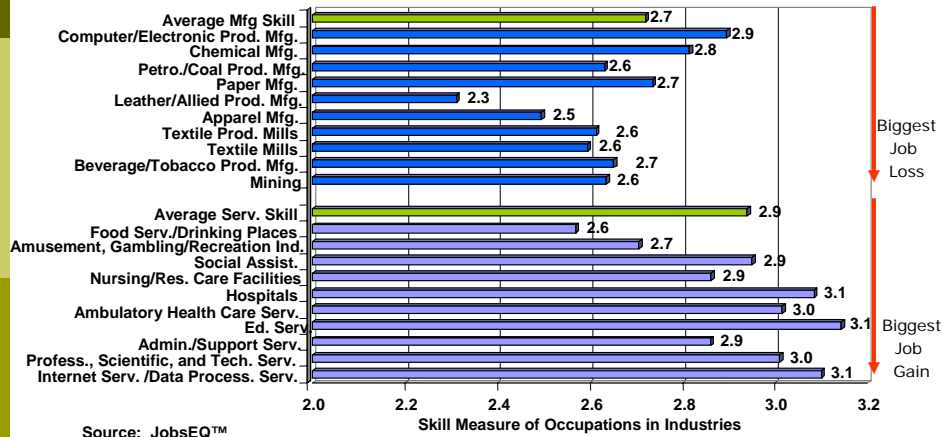# Another Example In Education: Start With Skills in Demand

The Economist, March 25, 2000

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Higher Skills Needed for Fast Growing Services than Declining Mfg Industries

Occupational Skill of Fastest Growing and Declining Industries, Virginia, 2002-2012

Average Mfg Skill — 2.7
Computer/Electronic Prod. Mfg. — 2.9
Chemical Mfg. — 2.8
Petro./Coal Prod. Mfg. — 2.6
Paper Mfg. — 2.7
Leather/Allied Prod. Mfg. — 2.3
Apparel Mfg. — 2.5
Textile Prod. Mills — 2.6
Textile Mills — 2.6
Beverage/Tobacco Prod. Mfg. — 2.7
Mining — 2.6

Biggest Job Loss

Average Serv. Skill — 2.9
Food Serv./Drinking Places — 2.6
Amusement, Gambling/Recreation Ind. — 2.7
Social Assist. — 2.9
Nursing/Res. Care Facilities — 2.9
Hospitals — 3.1
Ambulatory Health Care Serv. — 3.0
Ed. Serv — 3.1
Admin./Support Serv. — 2.9
Profess., Scientific, and Tech. Serv. — 3.0
Internet Serv. /Data Process. Serv. — 3.1

Biggest Job Gain

2.0   2.2   2.4   2.6   2.8   3.0   3.2
Skill Measure of Occupations in Industries

Source: JobsEQ™

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Math: Does It Really Matter?

The Economist, March 25, 2000

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Most Occupations* Require Math Skills

Percentage of Occupations

Importance of Math Skills in Occupation from 0 (lowest) to 100 (highest)
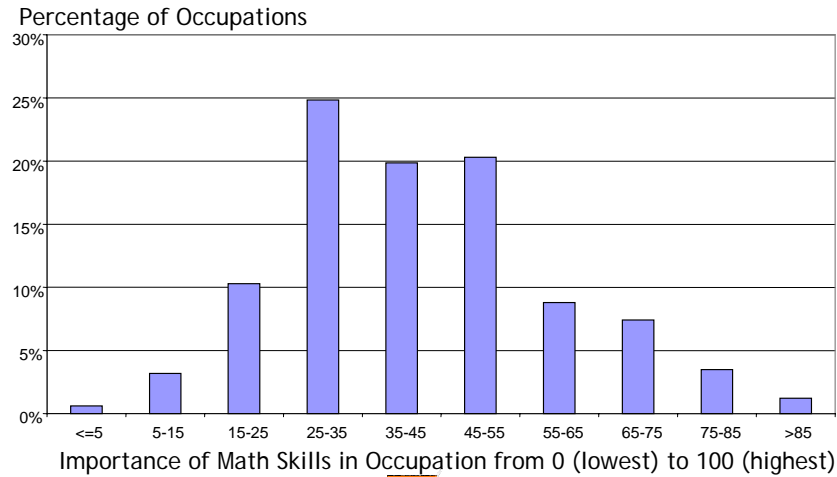
*660 occupations out of 800 are included in this profile

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## Math Skill Is an Important Component Of The Knowledge of an Occupation

- A simple linear regression indicates that math skills can explain 34% of the knowledge requirement of occupations

- Occupations requiring higher skill are expected to grow faster

- Occupations requiring more knowledge (education and experience) is associated with higher wages
  - Knowledge measure is obtained from O*NET (US Dept. Labor) database

- Conclusion: 'It pays' to invest in math skills

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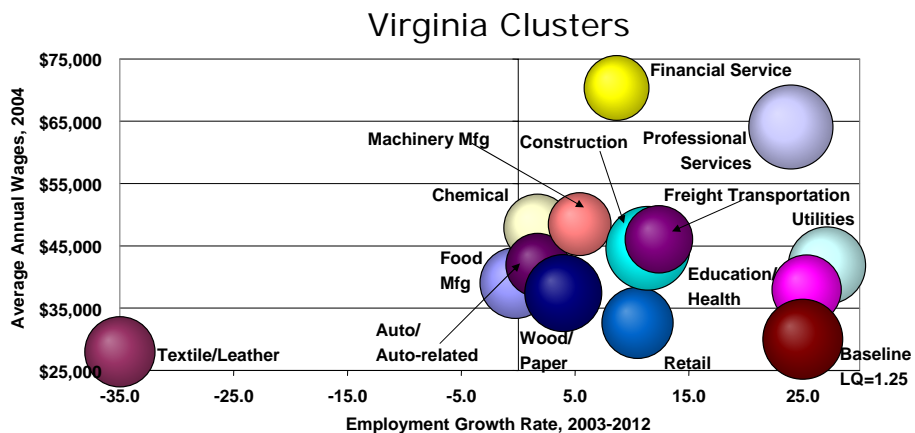# Math Skills versus Wages

39
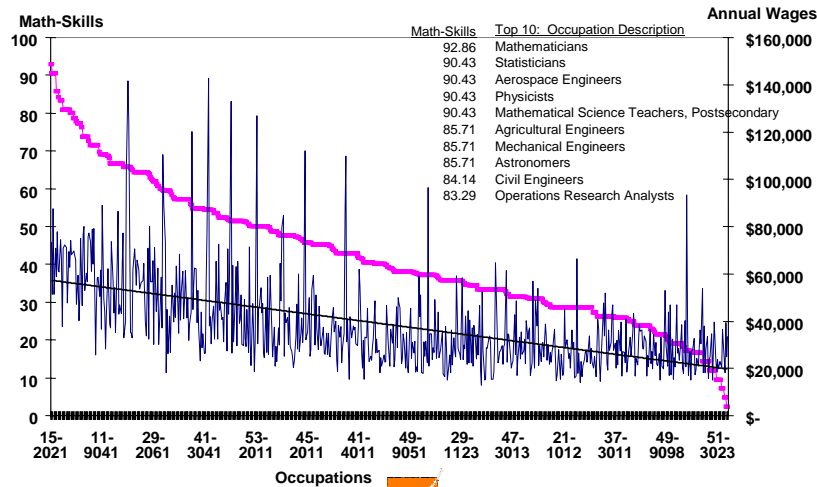
If we Invest in Math Skills, We Should be Attracting Industries/Clusters That Use Math

Source: JobsEQ™

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Defense is a Major Cluster in Virginia's Economy and is Linked to Knowledge Occupations

- Virginia gets more defense dollars than all but one state
- Technologies from defense often spill to private sector
  - Internet
  - GPS
- Many defense private sector firms are categorized as high knowledge users
- High knowledge occupations use a lot of math skills
  - Are expected to grow quicker than average
  - Pay higher-than-average wages
- Targeting this cluster significantly grows economy AND can tie into strategies that raise education levels

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Concluding Policy Implications

- It's worth investing in a central system that collects, analyzes, and presents relevant information
  - Cause and effect needs to be determined
  - Information needs to be readily accessible
- Education ROI is apparent
  - Individuals earn more
  - Regions grow faster and see higher average incomes
  - Societal benefits such as reduced crime
  - Math skills are important, particularly in defense and high-tech clusters
- Effective collection, application, and availability of data will define the best managed state of the future

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